Record of Decision
for Area of Concern 55A –
North of Trotter Road – Antennae Field
Area of Concern 55B –
North of Trotter Road – Debris Area
Naval Air Station South Weymouth
Weymouth, Massachusetts

Contract No. N62472-92-D-1296
Contract Task Order No. 0075

Department of the Navy
Engineering Field Activity Northeast
Naval Facilities Engineering Command
10 Industrial Highway
Mail Stop No. 82
Lester, Pennsylvania 19113-2090

October 2003
FINAL
29600.75.2100

PART 1—DECLARATION

I. SITE NAME AND LOCATION

Naval Air Station South Weymouth
1134 Main Street
Weymouth, Massachusetts 02190
MA2170022022
Area of Concern (AOC) 55A – North of Trotter Road – Antennae Field
Area of Concern (AOC) 55B – North of Trotter Road – Debris Area

Appendices provided herein include: Appendix A – Massachusetts Department of Environmental Protection Letter of Concurrence; Appendix B – References; Appendix C – Glossary; Appendix D – Administrative Record Index; Appendix E.1 – Public Comments on the Proposed Plan for AOC 55A and AOC 55B; and Appendix E.2 – Transcript of Public Hearing on the Proposed Plan for AOC 55A and AOC 55B.

II. STATEMENT OF BASIS AND PURPOSE

This decision document presents the No Further Action decision for Area of Concern (AOC) 55A (North of Trotter Road – Antennae Field) and the No Action decision for AOC 55B (North of Trotter Road – Debris Area), at the former Naval Air Station (NAS) South Weymouth, Weymouth, Massachusetts. This decision was chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 USC § 9601 *et seq.*, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300 *et seq.*, as amended. The regulatory program performed under the context of these combined laws and regulations is commonly referred to as "Superfund."

This decision is based on the Administrative Record, which has been developed in accordance with Section 113(k) of CERCLA, and which is available for review at the Navy's northeastern office, Engineering Field Activity Northeast (EFANE), in Lester, Pennsylvania. Public information repositories are also kept at the Tufts Library in Weymouth, Massachusetts; the Abington Public Library in Abington, Massachusetts; the Hingham Public Library in Hingham, Massachusetts; the Rockland Memorial Library in Rockland, Massachusetts; and the Department of the U.S. Navy Caretaker Site Office (CSO) in Weymouth, Massachusetts. The Administrative Record Index (Appendix D) identifies each of the items comprising the Administrative Record upon which the selection of this decision is based.

This decision had been selected by the U.S. Environmental Protection Agency (EPA) Region 1 and the U.S. Navy. The Massachusetts Department of Environmental Protection (MADEP) concurs with the No Further Action decision for AOC 55A and the No Action decision for AOC 55B (Appendix A).

III. DESCRIPTION OF THE SELECTED DECISION

This Record of Decision (ROD) sets forth the No Further Action decision for AOC 55A and the No Action decision for AOC 55B at the former NAS South Weymouth.

No unacceptable risks were identified for humans exposed to environmental media at either of the sites, except for a slight risk to future residents associated with manganese ingested via groundwater at AOC 55B. However, the presence of manganese in groundwater is consistent with regional conditions. No unacceptable ecological risks were identified at AOC 55B. After the successful completion of a removal action (excavation of soil, sediment, and antenna poles), no unacceptable ecological risks remain at AOC 55A.

AOC 55A and AOC 55B are 2 of the 13 AOCs identified to date at the former NAS South Weymouth. They have been addressed independently from the rest of NAS South Weymouth so that the Navy can proceed with closure of these sites as soon as they meet the requirements of the Superfund process. Because of the No Further Action and No Action decisions, the signing of this ROD by the Navy and EPA Region 1 will indicate the completion of the Superfund process for the Antennae Field and the Debris Area. The No Further Action and No Action decision for these sites is not expected to have any impact on the strategy or progress for the rest of the sites at NAS South Weymouth.

IV. STATUTORY DETERMINATIONS

No further remedial or removal actions are currently necessary at AOC 55A under CERCLA to ensure protection of human health and the environment. No remedial or removal actions are currently necessary at AOC 55B under CERCLA to ensure protection of human health and the environment. No additional actions, investigations, monitoring, or 5-year reviews will be required at either site.

V. AUTHORIZING SIGNATURES

This ROD documents that No Further Action and No Action is necessary to ensure protection of human health and the environment for AOC 55A and AOC 55B, respectively, at the former NAS South Weymouth, Massachusetts. This decision was selected by the Navy and EPA, with concurrence by MADEP.

Concur and recommended for immediate implementation:

U.S. Department of the Navy

By: _____ Date: 10/8/03

David A. Barney
BRAC Environmental Coordinator
Caretaker Site Office
NAS South Weymouth
U.S. Navy

By: _____ Date: 10/8/03

Al Haring
Director, Environmental Restoration Division
Engineering Field Activity Northeast
Naval Facilities Engineering Command
U.S. Navy

U.S. Environmental Protection Agency, Region 1

By: _____ Date: 10/20/03

Susan Studlien
Acting Director, Office of Site Remediation and Restoration
Region 1 – New England
U.S. EPA

PART 2—DECISION SUMMARY

I. SITE NAME, LOCATION, AND DESCRIPTION

Pursuant to CERCLA, the U.S. EPA placed the NAS South Weymouth on the National Priorities List (NPL) in May 1994. NAS South Weymouth is owned by the U.S. Government, and was operated by the Department of the Navy. It is located primarily in the Town of Weymouth, Massachusetts (Figure 2-1). Portions of NAS South Weymouth extend into the adjacent Towns of Abington and Rockland, Massachusetts. NAS South Weymouth was developed during the 1940s for dirigible aircraft used to patrol the North Atlantic during World War II. The facility was closed at the end of the war and reopened in 1953 as a Naval Air Station for aviation training. NAS South Weymouth was in continuous use since that time until it was operationally closed on 30 September 1996 and administratively closed on 30 September 1997. The Department of the Navy is the lead agency, and EPA is the support agency, for CERCLA activities at NAS South Weymouth. The U.S. Department of Defense is the sole source of cleanup funding for the property. There are several operable units and AOCs within the NAS South Weymouth NPL site (MA2170022022) that the Navy is addressing under CERCLA. This ROD relates to AOC 55A (North of Trotter Road – Antennae Field) and AOC 55B (North of Trotter Road – Debris Area).

AOC 55A comprises approximately 11.13 acres and is located west of Calnan Road, north of Trotter Road, and along (east of) the property fence line (Figure 2-1). It is situated in the northwestern portion of the Base. The area is covered with deciduous woods and dirt roads. A seasonally-flooded wetland covers approximately 30% of this area. The Antennae Field formerly contained seven antenna towers that were associated with a transmitter building (No. 78) to the south by Trotter Road. The towers were comprised of wooden poles that ranged from 35 to 91 ft tall, were over 1 ft in diameter, and were treated with creosote (like telephone poles). The poles had steel guy (support) wires and a grounding system comprised of heavy-gauge copper wire, copper-clad steel grounding rods, and copper sheeting on the pole platforms. The grounding wires extended 12 to 18 inches into the ground with a radius of 35 to 91 ft around each pole. The towers were connected to each other via subsurface coaxial cables. The seven antenna poles and much of the grounding wire/rods have been removed.

AOC 55B comprises approximately 10 acres and is a hummocky area covered with deciduous woods interspersed with open areas and dirt roads. The site is located west of Calnan Road, north of Trotter Road and east-northeast of AOC 55A. It is situated in the northwestern portion of the Base (Figure 2-1). French Stream defines its easternmost boundary and a wetland lies to the northwest. The area was undeveloped (open space - forest interspersed with dirt roads) but also was used for the disposal of an assortment of materials that included concrete rubble, some 55-gallon drums, and various household/automobile debris items. The debris, other than some concrete rubble, has been removed.

II. SITE HISTORY AND ENFORCEMENT ACTIVITIES

A. Site History

AOC 55A and AOC 55B are 2 of the 13 CERCLA AOCs identified to date at NAS South Weymouth. AOC 55A and AOC 55B were originally identified in the Phase I Environmental Baseline Survey (EBS) Report as Review Item Area (RIA) 55. RIA 55 contained debris in a large area. The debris included solid waste items such as concrete slabs, a Corsair airplane wing, rusted 55-gallon drums, tires, shoes, and other household and automotive debris. An abandoned antennae field was located in the southwestern section nearby the property fence line. This antennae field was highlighted as a distinct sampling area (AOC 55A) with a discrete potential source (activity around the antennae).

AOC 55A consisted of seven transmitter antenna towers in an area west of Calnan Road and north of the Radio Transmitter Building (Building No. 78) (see Figure 2-1). The area within this boundary amounts to 11.13 acres, although the actual surface area of concern around the seven poles comprises only 2.54 acres. Sampling at AOC 55A focused on surface soil at the base of the seven antenna poles, and sediment samples at three of the antenna poles located within a wetland area. One area of debris near an antenna was also included for this site.

The Phase II EBS sample results were used to evaluate the potential for adverse health risks posed to human and ecological receptors at AOC 55A. The human health risk assessment (HHRA) revealed no unacceptable risks to humans from exposure to the site. The ecological risk assessment (ERA) indicated a potential for unacceptable risk to ecological receptors from elevated concentrations of metals in the soil and polycyclic aromatic hydrocarbons (PAHs), pesticides, and copper in the sediment. Based on these results in conjunction with the upcoming property transfer, a Time-Critical Removal Action was determined to be the best mode of action. The Time-Critical Removal Action at AOC 55A involved the excavation and removal of contaminated soil, confirmatory sampling, and offsite disposal (Foster Wheeler 2003). Approximately 300 tons of soil and sediment that contained chemical concentrations above background levels and ecological risk benchmarks were removed and disposed of offsite. Excavation also included removal and disposal of the seven wooden antenna towers and removal of the associated copper grounding systems around towers within the limits of the excavation areas. Confirmatory sampling indicated that the contamination was successfully removed and no unacceptable risk to ecological receptors remains at AOC 55A.

AOC 55B, North of Trotter Road-Disposal Area, is a 10 acre area west of Calnan Road and northeast of AOC 55A (see Figure 2-1). Several dirt roads provide access to this area. Debris originally noted as part of RIA 55, including concrete debris with rebar, a Corsair airplane wing, some rusted 55-gal drums, tires, shoes, and other household and automotive debris, is contained within AOC 55B. The Navy removed surficial solid waste and debris from a 0.5-acre area in 1999 (Foster Wheeler 1999). At that time, the site was not known as AOC 55B; rather, it was called West Gate Landfill North (WGLN).

The Phase II EBS sample results were used to evaluate the potential for adverse health risks posed to human and ecological receptors at AOC 55B. The HHRA revealed a slight risk to future potential residents consuming manganese from site groundwater. However, manganese concentrations in groundwater at the site reflect regional background conditions, and as such, do not require remediation. The ERA indicated a slight potential for unacceptable risk to ecological receptors associated with a wetland located in the northwest portion of the site. This wetland has been separated from AOC 55B and is now being investigated separately as AOC 55D. As a result, there are no unacceptable risks to ecological receptors at AOC 55B.

B. History of Site Investigations

Previous investigations and the enforcement activities at AOC 55A and AOC 55B are summarized below:

- **Phase I Environmental Baseline Survey (EBS) (Stone & Webster 1995)**– The Navy performed a Phase I EBS to identify areas that required further investigation for potential contamination. These areas were classified as RIAs. The Antennae Field and the Debris Area were grouped together as RIA 55.

- **Phase II EBS (Stone & Webster 1998)**–The RIAs were investigated as separate sites. The Navy collected surface soil samples from the base of the seven antenna poles (RIA 55A) and collected surface soil, subsurface soil, sediment, surface water, and groundwater samples (RIA 55B).

- **Debris removal (Foster Wheeler 1999) –** Removal of much of the surficial solid waste from AOC 55B.

- **Additional Phase II EBS sampling (EA 2002b, c)** – At AOC 55A, the Navy collected additional soil and sediment samples from the base of the antenna poles. At AOC 55B, the Navy collected additional soil, sediment, and surface water samples. Analytical results indicated that the sites should be assessed for potential risks posed to human health and the environment. At NAS South Weymouth, an RIA where there is an exceedance of a human health or ecological risk benchmark or background value for one or more CERCLA hazardous substance becomes an AOC. The Navy then may perform a streamlined risk assessment or removal action at the AOC. The Antennae Field was designated AOC 55A, and the Debris Area was designated AOC 55B.

- **HHRA (EA 2002b, c)**–Using the Phase II EBS sample results, the Navy conducted streamlined[1] HHRAs to determine the potential for adverse human health impacts resulting from exposure to environmental media under conservative exposure scenarios.

[1] The streamlined ecological and human health risk assessments used a limited number of conservative exposure pathways, receptors, and exposure assumptions, agreed upon in advance with the regulatory agencies. Results indicating acceptable risk under the most conservative approach (for example, the residential scenario), would therefore indicate acceptable risk under all other scenarios.

The HHRAs concluded that there are no unacceptable risks to human health at AOC 55A or AOC 55B.

- **ERA (Stone & Webster 2002c, d)**–Using the Phase II EBS sample results, the Navy conducted streamlined ERAs to identify potential risks that chemicals in environmental media may pose to ecological receptors. The ERA indicated a potential for unacceptable risk to ecological receptors at AOC 55A and within a wetland area at AOC 55B. This wetland was subsequently separated from AOC 55B and is being further (separately) investigated as AOC 55D. As a result, the slight potential for unacceptable ecological risk is eliminated from AOC 55B.

- **Time-Critical Removal Action (Foster Wheeler 2003)** – The Navy conducted a CERCLA removal action to address the identified potential unacceptable ecological risks at AOC 55A. The antenna poles and impacted soil were removed. Post-excavation sampling indicated that the soil contamination was successfully removed and no unacceptable risk to ecological receptors remained.

C. History of CERCLA Enforcement Activities

In May 1994, NAS South Weymouth was listed on EPA's NPL, indicating that the NAS South Weymouth property was a priority for environmental investigation and cleanup. The Navy has conducted environmental studies and activities at NAS South Weymouth in accordance with CERCLA and the NCP. Based on the designation of NAS South Weymouth property as an NPL site, a Federal Facility Agreement was executed by the Navy and EPA, which became effective in April 2000. This agreement establishes the Navy as the lead agency for the investigation and cleanup of designated sites within NAS South Weymouth property, with EPA providing oversight. The MADEP is not a party to the Federal Facility Agreement. In accordance with CERCLA and the NCP, MADEP has participated in ongoing discussions and strategy sessions, and provides oversight and guidance through their review of CERCLA documents.

III. COMMUNITY PARTICIPATION

The Navy has worked to keep the community involved throughout the investigation process. The Navy has kept the community and other interested parties apprised of site activities through informational meetings, fact sheets, press releases, public meetings, and regular contact with local officials. Also, the Navy meets on a regular basis to discuss the status and progress of the environmental programs with the Restoration Advisory Board (RAB), which includes representatives from the neighboring communities. Representatives from the Navy, EPA Region 1, MADEP, and local government have attended the public meetings and hearings. Below is a brief chronology of public outreach efforts:

- In September 1995, the Navy initiated a series of public meetings, at which the RAB process was explained and community members were asked to join the RAB. A sufficient number of volunteers was assembled and RAB meetings began in March 1996.

Since that time, RAB meetings have been held on a monthly basis to keep the RAB and local community informed of the progress of the environmental investigations.

- In July 1998, the Navy released a community relations plan that outlined a program to address community concerns and keep citizens informed about and involved in remedial activities.

- The North and South Rivers Watershed Association (NSRWA) was awarded a Technical Advisory Grant (TAG) from the EPA and MADEP in March 1996. This TAG allowed the NSRWA to hire a Technical Advisor to review documents, attend meetings, and prepare evaluation reports. The Technical Advisor attended most RAB meetings and technical project meetings.

- The RAB for NAS South Weymouth was granted a Technical Assistance for Public Participation (TAPP) grant from the Department of Defense in May 1999. This grant allowed the RAB to obtain technical assistance from experts in the environmental field to help them understand the environmental cleanup programs at the Base.

- The Navy has distributed technical documents directly to the RAB members including the EBS Decision Documents, the HHRAs and ERAs, and the Closeout Report Action Memoranda.

- The Navy gave a public presentation about the removal action at AOC 55A at the March 2003 RAB meeting (as well as brief updates of the status of the investigations at AOC 55A and AOC 55B during other RAB meetings).

- The Navy published a legal notice of the Proposed Plan for the AOC 55A and AOC 55B in the *Patriot Ledger* (25 August 2003), the *Weymouth News* (27 August 2003), the *Hingham Journal* (28 August 2003), and the *Abington-Rockland Mariner* (29 August 2003). Local community calendars and cable stations were notified of the meeting date for the public information session and public hearing. The Navy distributed copies of the Proposed Plan to a mailing list of nearly 400 community members. In addition, the Navy made the Proposed Plan available to the public at several established Information Repositories (listed below) and the Navy's public website for environmental activities at the former NAS South Weymouth (http://weymouthnas.eaest.com).

- From 29 August 2003 until 29 September 2003, the Navy offered the Proposed Plan for public comment, in accordance with the requirements of the NCP and the CERCLA program at NAS South Weymouth. During the comment period, one written comment was received (Appendix E.1). Also, verbal comments were received from one person during the Public Hearing (Appendix E.2). As shown in Part 3 of this ROD, the comments were requests for clarification or additional information and did not disagree with the Proposed Plan.

- On 10 September 2003, the Navy held an informational meeting to present the Navy's Proposed Plan to a broader community audience than had already been involved at the site. At this meeting, representatives from the Navy discussed the Proposed Plan and answered questions from the public. In addition, the Navy held a public hearing to accept oral comments on the Proposed Plan. A transcript of comments received at the public hearing is included as Appendix E.2.

- The Navy has provided responses to comments received at the public hearing in the Responsiveness Summary, which is included in Part 3 of this ROD.

In addition, the Navy is providing an index of the Administrative Record available for public review at the Navy's EFANE office in Lester, Pennsylvania. Information repositories have also been established at several locations. Currently, information is available at the Tufts Library in Weymouth, Massachusetts; the Abington Public Library in Abington, Massachusetts; the Hingham Public Library in Hingham, Massachusetts; the Rockland Memorial Library in Rockland, Massachusetts; and the Department of the Navy CSO, Weymouth, Massachusetts. The Administrative Record Index is included as Appendix D to this ROD.

IV. SCOPE AND ROLE OF OPERABLE UNIT OR RESPONSE ACTION

In addition to several CERCLA Operable Units, AOC 55A and AOC 55B are 2 of the 13 CERCLA AOCs identified to date at the former NAS South Weymouth, Massachusetts (Table 2-1). In general, the operable units and AOCs at NAS South Weymouth progress through the CERCLA cleanup process independent of one another.

The ROD for AOC 55A and AOC 55B is one component of the Superfund program at NAS South Weymouth. It has proceeded on an independent track from the other operable units and AOCs in order to enable the Navy to expedite site closure and property transfer. The signing of this ROD by the Navy and EPA Region 1 will indicate the completion of the Superfund process for AOC 55A and AOC 55B. No additional actions or investigations of these AOCs are required under CERCLA, and the sites may be returned to the communities for unrestricted exposure and unlimited use. The selected No Further Action decision for AOC 55A and No Action decision for AOC 55B are not expected to have an impact on the strategy or progress for the remaining sites at NAS South Weymouth. Additional details on the strategy and schedule for the remediation of the other Operable Units at NAS South Weymouth are available in the Navy's Site Management Plan report (EA 2003).

V. SITE CHARACTERISTICS

The Phase I EBS Reports identified debris in a large area (initially designated as RIA 55). RIA 55 was located in an area west of Calnan Road and north of the Radio Transmitter Building (Building No. 78) and included the areas that are now AOC 55A and AOC 55B. The debris included solid waste items such as concrete slabs, a Corsair airplane wing, rusted 55-gallon

drums, tires, shoes, and other household and automotive debris. An abandoned antennae field (remains of seven poles) was located in the southwestern section nearby the property fence line.

The antennae field (approximately 11.13 acres) was highlighted as a distinct sampling area with a discrete potential source (activity around the antennae) and became AOC 55A. The towers were comprised of wooden poles that ranged from 35 to 91 ft tall, were over 1 ft in diameter, and were treated with creosote (like telephone poles). The poles had steel guy (support) wires and a grounding system comprised of heavy-gauge copper wire, copper-clad steel grounding rods, and copper sheeting on the pole platforms. The grounding wires extended 12 to 18 inches into the ground with a radius of 35 to 91 ft around each pole. The towers were connected to each other via subsurface coaxial cables. The seven antenna poles and much of the grounding wire/rods have been removed. The area encompassing the antennae field is generally deciduous forest and contains dirt roads. A seasonally-flooded wetland covers approximately 30% of this area. The wetland areas are present in the southern part of the AOC, in areas near three of the poles. The wetland drains into French Stream to the east. The distance between the main body of the wetland and French Stream is approximately 360 ft. The slope over the site is minimal, which is typical of the entire NAS South Weymouth facility. Sampling at AOC 55A focused on surface soil at the base of the seven antenna poles. One area of debris near an antenna was also included for this site. In addition, sediment samples were collected from wetland areas, near three of the antenna poles. Refer to Figure 2-2 for sample locations.

The general debris area northeast of the antennae field was designated as AOC 55B. In 1999, the Navy removed much of the surficial solid waste and debris from AOC 55B (some concrete rubble remains). AOC 55B (approximately 10 acres) is a hummocky area covered with deciduous woods interspersed with open areas and dirt roads. Surface soil, subsurface soil, sediment, groundwater, and surface water samples were collected from AOC 55B. The areas sampled at AOC 55B included the following: (1) the wetland area at the northwest end of the AOC (0.44 acres); (2) the surface soil within the rectangle of surface soil samples taken in the main debris area (1.03 acres); and (3) the small debris areas (SS15-013 and MW15-024). The wetland at the northwest end of the area (location of the sediment and surface water samples) has been renamed AOC 55D and is being investigated separately from AOC 55B. Refer to Figure 2-3 for sample locations.

The results of the risk assessments are presented in Section VII, Summary of Potential Site Risks.

VI. CURRENT AND POTENTIAL FUTURE SITE RESOURCE USES

Under current use of the former NAS South Weymouth, there are no regular activities occurring at these AOCs; therefore, there is limited potential for current worker exposure. Human activity is limited to possible brush clearing or grass cutting during summer months at AOC 55A. AOC 55B is a heavily wooded area; therefore, there are no regular activities at this AOC. NAS South Weymouth is operationally closed. The Navy generally controls access to the Base (and thereby the sites) via fencing, vehicle gates, and administrative staff present at the Base.

The anticipated future uses of the AOC 55A and AOC 55B properties are based on the zoning prescribed in the *Zoning and Land Use By-Laws for the Naval Air Station South Weymouth* (NASPC 1998) which has been approved by the townships of Weymouth, Abington, and Rockland and is still in effect. The northern portion of both AOCs is zoned for future senior residential housing. The remainder of the AOC 55A and AOC 55B property is zoned as "open space." Therefore, during risk assessments, the Navy evaluated the most restrictive/conservative future use scenario (i.e., onsite residential). The open space zoning is intended for the preservation of large, contiguous wetland areas and open space for parkland, active and passive recreation, reservations, community gardens, rivers and streams, and similar uses. The zoning may also encompass such interests as watershed and flood protection, preservation of wildlife habitat, and conservation of recreational land. No residential re-use is permitted under the "open space" zoning. Changes to the zoning would require approval from the three townships (Weymouth, Abington, and Rockland).

Groundwater at the sites is within a state-mapped, potentially productive, medium-yield aquifer zone. Therefore, site groundwater can be considered to be part of a Potential Drinking Water Source Area.

As summarized in Section VII, the conditions at the site are suitable for unrestricted exposure and unlimited use.

VII. SUMMARY OF POTENTIAL SITE RISKS

Streamlined risk assessments were performed for AOC 55A (EA 2002b, Stone & Webster 2002d) and AOC 55B (EA 2002b, Stone & Webster 2002c) to estimate the potential adverse human health and environmental (ecological) effects from exposure to the site assuming no remedial action were taken. If unacceptable risks were determined, then the risk assessments would provide the basis for taking action and identifies the contaminants and exposure pathways that need to be addressed by the remedial action. Based on the lack of unacceptable risks, additional action is not necessary at AOC 55A or AOC 55B, as discussed below in the human health and ecological summaries of the streamlined risk assessments.

A. Human Health Risk Assessment

Streamlined HHRAs were completed for both AOCs. The AOC 55A HHRA estimated the probability and magnitude of potential adverse human health effects from exposure to chemicals of potential concern (COPCs) associated with surface soils and sediments assuming no remedial action were taken. The AOC 55B HHRA estimated the probability and magnitude of potential adverse human health effects from exposure to COPCs associated with soils, groundwater, surface water, and sediment assuming no remedial action were taken. The streamlined HHRAs were conducted in accordance with regional and federal EPA guidance and were approved by EPA Region I (EA 2001).

The HHRAs, which support the No Further Action decision for AOC 55A and the No Action decision for AOC 55B, followed a 4-step process: (1) contaminant identification that identified those hazardous substances which, given the specifics of the site, were of potential concern; (2) exposure assessment that identified actual or potential exposure pathways, characterized the potentially exposed populations, and determined the extent of possible exposure; (3) toxicity assessment that considered the types and magnitude of adverse health effects associated with exposure to hazardous substances; and (4) risk characterization that integrated the three earlier steps to summarize the potential and actual risks posed by hazardous substances at the site, including carcinogenic and non-carcinogenic risks.

COPCs were determined in the screening assessment portion of the HHRA based on frequency of detection, toxicity, concentration, and mobility and persistence in the environment. As a conservative measure, EPA Region III risk-based concentrations (RBCs) for residential soil were employed for the screening analysis for both soil and sediment. EPA Region III RBCs for residential tap water were employed for the screening analysis for groundwater. Water Quality Criteria (WQC) were employed for the screening analysis for surface water, except for those analytes without WQC, for which tap water RBCs were used. The results of this screening for AOC 55A are shown in Tables 2.1 through 2.4 of the Streamlined HHRA (EA 2002b). The results of this screening for AOC 55B are shown in Tables 2.1 through 2.8 of the Streamlined HHRA (EA 2002c).

Conceptual Site Model (CSM)

Potential human health effects associated with COPCs were estimated quantitatively through the development of several hypothetical exposure pathways. These pathways were developed to reflect the potential for exposure to COPCs based on the present uses, potential future uses, and location of the site. CSMs for AOC 55A and AOC 55B depict these pathways and are provided in Figures 2-4 and 2-5, respectively. Specific sources of COPCs, release mechanisms, exposure pathways to receptors, and site-specific factors have been presented in the Streamlined HHRA reports for AOC 55A (EA 2002b) and AOC 55B (EA 2002c).

The following receptor scenarios were evaluated for AOC 55A: industrial (commercial worker) and residential (adult, child). Exposure pathways included incidental ingestion of and dermal contact with surface soil and sediments. Specific pathways evaluated for each receptor are delineated in the CSM (Figure 2-4). Risks were calculated using reasonable maximum exposure (RME) assumptions. These pathways were developed to reflect the potential for exposure to hazardous substances based on the present use, potential future uses, and location of the site. Tables 3.1 through 3.4 of the Streamlined HHRA (EA 2002b) show a summary of the COPCs and exposure point concentrations used to evaluate the RME scenario. Exposure assumptions are presented in Tables 4.1 through 4.6 of the Streamlined HHRA.

The following receptor scenarios were evaluated for AOC 55B: industrial (construction worker, commercial worker) and residential (adult, child). Exposure pathways included incidental ingestion of and dermal contact with soil; incidental ingestion of and dermal contact with

sediments; incidental ingestion and dermal contact with surface water; and incidental ingestion of and dermal contact with groundwater. Specific pathways evaluated for each receptor are delineated in the CSM (Figure 2-5). Risks were calculated using RME assumptions. These pathways were developed to reflect the potential for exposure to hazardous substances based on the present use, potential future uses, and location of the site. Tables 3.1 through 3.7 of the Streamlined HHRA (EA 2002c) show a summary of the COPCs and exposure point concentrations used to evaluate the RME scenario. Exposure assumptions are presented in Tables 4.1 through 4.15 of the Streamlined HHRA.

Excess lifetime cancer risks were determined for each exposure pathway by multiplying a daily intake level with the chemical-specific cancer potency factor. Cancer potency factors have been developed by EPA from epidemiological or animal studies to reflect a conservative "upper bound" of the risk posed by potentially carcinogenic compounds. That is, true risk is unlikely to be greater than the risk predicted. The resulting risk estimates are expressed in scientific notation as a probability (e.g., 1×10^{-6} for 1/1,000,000) and indicate (using this example) that an average individual is not likely to have greater than a one in a million chance of developing cancer over a 70-year lifetime as a result of site-related exposure (as defined) to the compound at the stated concentration.

EPA's generally acceptable risk range for site-related exposure is from 10^{-4} to 10^{-6}. Current EPA practice considers carcinogenic risks to be additive when assessing exposure to a mixture of hazardous substances.

In assessing the potential for adverse effects other than cancer, a hazard quotient (HQ) is calculated by dividing the daily intake level by the reference dose or other suitable benchmark. EPA has developed reference doses, and they represent a level to which an individual may be exposed that is not expected to result in any deleterious effect. Reference doses are derived from epidemiological or animal studies and incorporate uncertainty factors to ensure that adverse health effects will not occur. An HQ less than one indicates that a receptor's dose of a single chemical is less than the reference dose, and potential adverse systemic health effects from that chemical are unlikely. For consideration of exposures to more than one chemical causing systemic toxicity via several different pathways, the individual HQs are summed to provide an overall hazard index (HI). An HI less than 1.0 indicates no adverse health effects are likely to be associated with exposures at the site. However, if the total HI is greater than 1.0, separate endpoint-specific HIs may be calculated based on toxic endpoint of concern or target organ (e.g., liver). Only if an endpoint-specific HI is greater than 1.0 is there reason for concern about potential health effects for that endpoint.

<u>Human Health Risk Assessment Results - AOC 55A</u>

Risk results for AOC 55A are presented in Tables 7.1 through 7.2 of the Streamlined HHRA (EA 2002b) for all receptors across all media of concern at the site. Table 2-2 summarizes the human health risk assessment results for current and potential future use corresponding to the

RME scenario at AOC 55A. The results of the risk assessment conducted to evaluate potential human health risks resulting from potential exposures at AOC 55A indicate:

- Cumulative non-cancer HIs were less than EPA's risk target of HI = 1.0 for all receptors except resident child. The Streamlined HHRA revealed that exposures to COPCs in surface soil and sediment among future resident children results in a total HI of 1.1. Cumulative HIs do not exceed 1.0 for any individual target organs. Therefore, there are no concerns for adverse non-cancer effects resulting from exposures to surface soil or sediment for future residential children at AOC 55A.

- Cumulative cancer risk estimates for all receptors were below or within EPA's "acceptable risk range" of 10^{-6} to 10^{-4}.

No chemicals of concern were determined for the site. Therefore, there are no concerns for potential risks from exposure to non-carcinogens and carcinogens in any medium at the site, and no remediation is necessary to be protective of human health.

Human Health Risk Assessment Results - AOC 55B

Risk results for AOC 55B are presented in Tables 7.1 through 7.4 of the Streamlined HHRA (EA 2002c) for all receptors across all media of concern at the site. Table 2-3 summarizes the human health risk assessment results for current and potential future use corresponding to the RME scenario at AOC 55B. The results of the risk assessment conducted to evaluate potential human health risks resulting from potential exposures at AOC 55B indicate:

- Cumulative non-cancer HIs were less than EPA's risk target of HI = 1.0 for all receptors, except residents. Manganese is the only COPC with an HI exceeding 1.0. However, manganese concentrations in groundwater at the site reflect NAS South Weymouth background conditions, and as such, do not require remediation. It is not EPA's policy to require remediation of sites to concentrations that are less than background.

- Cumulative cancer risk estimates for all receptors were below or within EPA's "acceptable risk range" of 10^{-6} to 10^{-4}.

No chemicals of concern were determined for the site. Therefore, there are no concerns for potential risks from exposure to non-carcinogens and carcinogens in any medium at the site, and no remediation is necessary to be protective of human health.

B. Ecological Risk Assessment (ERA)

In addition to the streamlined HHRAs described above, the Navy also completed streamlined ERAs for the sites. The ERAs were conducted to estimate the potential risks to ecological receptors from chemicals in the environment. The ERAs were completed in three steps: (1) problem formulation, (2) exposure and effects assessment, and (3) risk characterization.

Step 1: Problem Formulation

The Navy collected and evaluated information about the site conditions (e.g., type of habitat, and plant and animal species at the site), the COPCs, and the potential exposure pathways. For AOC 55A, as shown in Table 2-4, a total of 7 inorganics, 6 pesticides, 17 semivolatile organic compounds (SVOCs), total PAHs, and 1 volatile organic compound (VOC) were identified as COPCs in sediment; a total of 8 inorganics, 4 pesticides, 14 SVOCs, total PAH, and 2 VOCs were identified as COPCs in surface soil. The ecological receptor groups evaluated included terrestrial plants, terrestrial invertebrates, wetland plants, aquatic life, and terrestrial and wetland vertebrate wildlife (i.e., small mammals and birds). The potential routes of exposure evaluated included direct uptake from surface soil by terrestrial plants; ingestion of soil by terrestrial invertebrates; direct contact with sediment by wetland plants and aquatic receptors; and ingestion by vertebrate wildlife of surface soil, sediment, and food items that may contain accumulated chemicals from surface soil and sediment. The exposure pathways, as well as the assessment and measurement endpoints used in the AOC 55A ERA, are presented in Table 2-4. The CSM is depicted in Figure 2-6.

For AOC 55B, as shown in Table 2-5, a total of 7 inorganics, 1 pesticide, 8 SVOCs, total PAH, and 3 VOCs were identified as COPCs in surface soil. The ecological receptor groups evaluated included terrestrial plants, terrestrial invertebrates, and terrestrial vertebrate wildlife (i.e., small mammals and birds). The potential routes of exposure evaluated included direct uptake from surface soil by terrestrial plants; ingestion of soil by terrestrial invertebrates; and ingestion by vertebrate wildlife of surface soil and food items that may contain accumulated chemicals from surface soil. The exposure pathways, as well as the assessment and measurement endpoints used in the AOC 55B ERA, are presented in Table 2-5. The CSM is depicted in Figure 2-7.

Step 2: Exposure and Effects Assessment

The exposure assessment estimated the amount of a COPC to which a receptor may be exposed. For plants, soil invertebrates, and aquatic receptors, this amount was the concentration determined by directly sampling soil and sediment at AOC 55A and soil at AOC 55B. For vertebrate wildlife, which ingest soil, sediment, and food items that may contain accumulated chemicals from soil and sediment, exposure was estimated in simple food chain models which start with the measured concentrations in soil and sediment, and take into account other exposure factors such as bioaccumulation, as well as the dietary composition, ingestion rate, home range, and body weight of the animal.

The ecological effects assessment described the potential adverse effects to ecological receptors from the COPCs. Generally, potential effects include mortality and effects on growth and development. Toxicity benchmarks, which are levels of chemicals designed to be protective of the receptor, were taken from the scientific literature for use as a measure of these potential effects.

Step 3: Risk Characterization

The exposure estimates and toxicity benchmarks determined in Step 2 were used to estimate the potential for adverse effects to the ecological receptors at the sites. The risk to ecological receptors is expressed as a Hazard Quotient (HQ), which is calculated by dividing a receptor's exposure estimate by the toxicity benchmark. When the HQ is below 1.0 (exposure estimate is less than toxicity benchmark), toxicological effects are unlikely to occur; therefore, unacceptable risk is not present. When the HQ is above 1.0 (exposure estimate is greater than toxicity benchmark), there is a potential for unacceptable risk to be present.
At AOC 55A, the risk characterization showed that the average concentrations of some metals in surface soil exceeded terrestrial plant and invertebrate soil benchmark values, and the average concentration of copper in sediment exceeded the terrestrial plant soil benchmark value used to evaluate wetland plants. However, because of the uncertainties associated with the soil benchmark values, further action at this AOC was not recommended based on these exceedances. Average concentrations of antimony, vanadium, and aluminum in surface soil produced HQs greater than 1.0 for the terrestrial small mammal receptors evaluated; and average concentrations of iron and aluminum in surface soil produced HQs greater than 1.0 for the terrestrial bird receptor evaluated. The average concentrations of various PAHs, pesticides, and copper in sediment produced HQs greater than 1.0 for aquatic life receptors; and the average concentration of total PAHs in sediment produces an HQ greater than 1.0 for the wetland small mammal receptor evaluated. These results (HQs greater than 1.0) indicated that there was a potential for unacceptable risk to ecological receptors from the chemical concentrations in the sediment and surface soil at the Antennae Field. A Time-Critical Removal Action was conducted at AOC 55A, which included the removal of sediment and soil. The results of the confirmatory sampling conducted as part of the removal action were evaluated for ecological risk consequences. Concentrations of some metals and organic compounds in surface soil, and two metals in sediment, exceeded background concentrations. As part of the risk evaluation, the concentrations of these compounds were compared to various screening values and background concentrations available in the literature, as well as to the pre-remediation concentrations and corresponding risk results from the AOC 55A ERA food web models. Using these various lines of evidence, it was concluded that the exceedance of background concentrations in the confirmatory samples was not a concern for ecological risk.

At AOC 55B, the risk characterization showed that the average concentrations of chromium and zinc in surface soil exceeded terrestrial plant soil benchmark values; and the average concentration of chromium in surface soil exceeded the terrestrial invertebrate soil benchmark values. However, because of the uncertainties associated with the soil benchmark values, further action at this AOC was not recommended based on these exceedances. The risk characterization at the Debris Area showed no unacceptable risk to the terrestrial small mammal receptors from exposure to COPCs in surface soil. For the terrestrial bird evaluated (the robin), the average concentration of iron in the soil produced an HQ of 2.0. However, iron is a common earth element and an essential nutrient, and the concentration of iron in the surface soil was not considered likely to result in unacceptable ecological risk; therefore, further action was not deemed necessary.

VIII. DOCUMENTATION OF NO SIGNIFICANT CHANGES

The Navy presented a Proposed Plan of No Further Action for AOC 55A and No Action for AOC 55B on 29 August 2003. The Navy reviewed the comments submitted during the public comment period (Appendixes E.1 and E.2). As summarized in the Responsiveness Summary (Part 3), it was determined that no significant changes to the decision, as originally identified in the Proposed Plan, were necessary. Therefore, No Further Action for AOC 55A and No Action for AOC 55B will be implemented.

IX. STATE ROLE

MADEP concurs with the Navy's and EPA's No Further Action decision for AOC 55A and No Action for AOC 55B at NAS South Weymouth (see Appendix A).

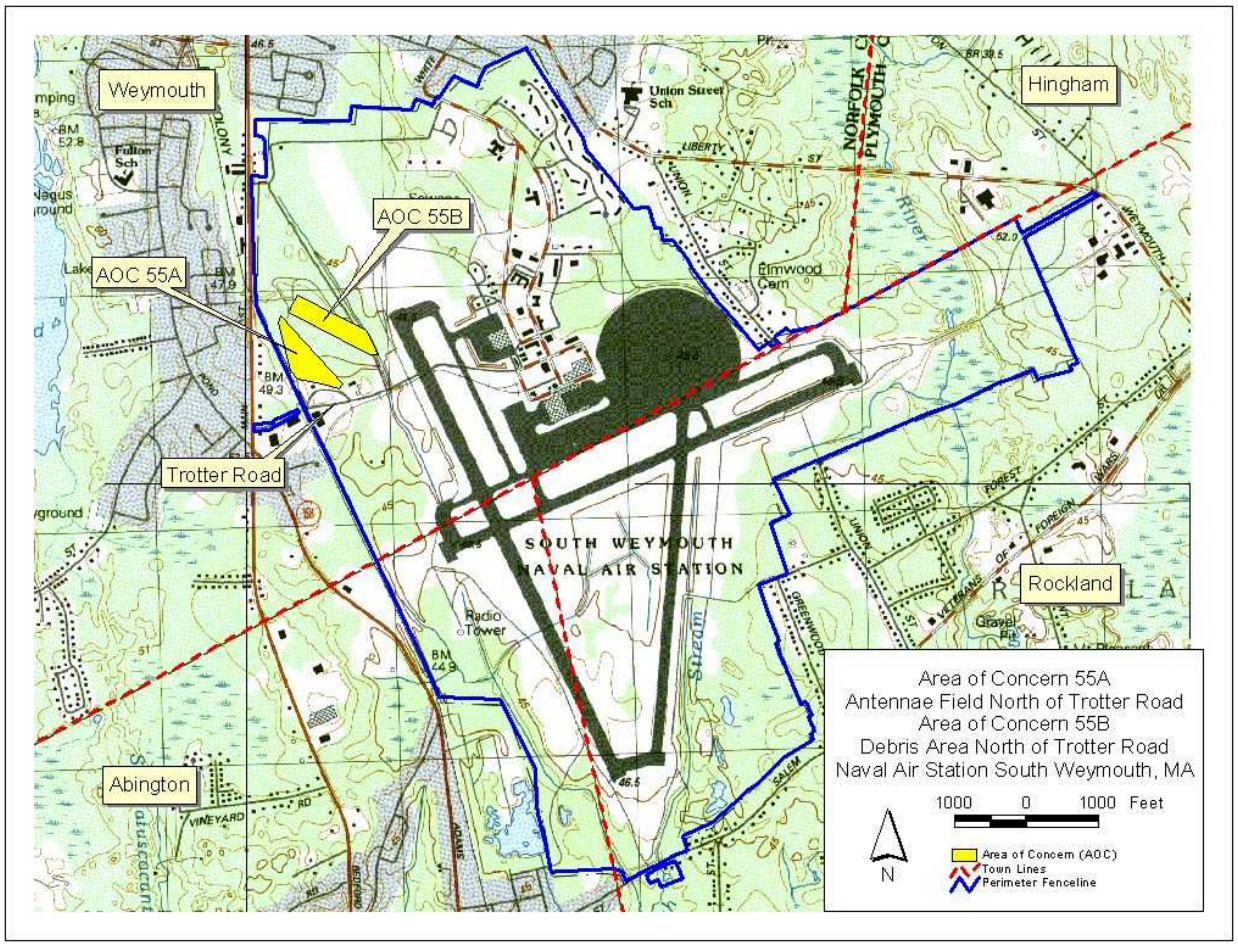

Figure 2-1. Site location map.

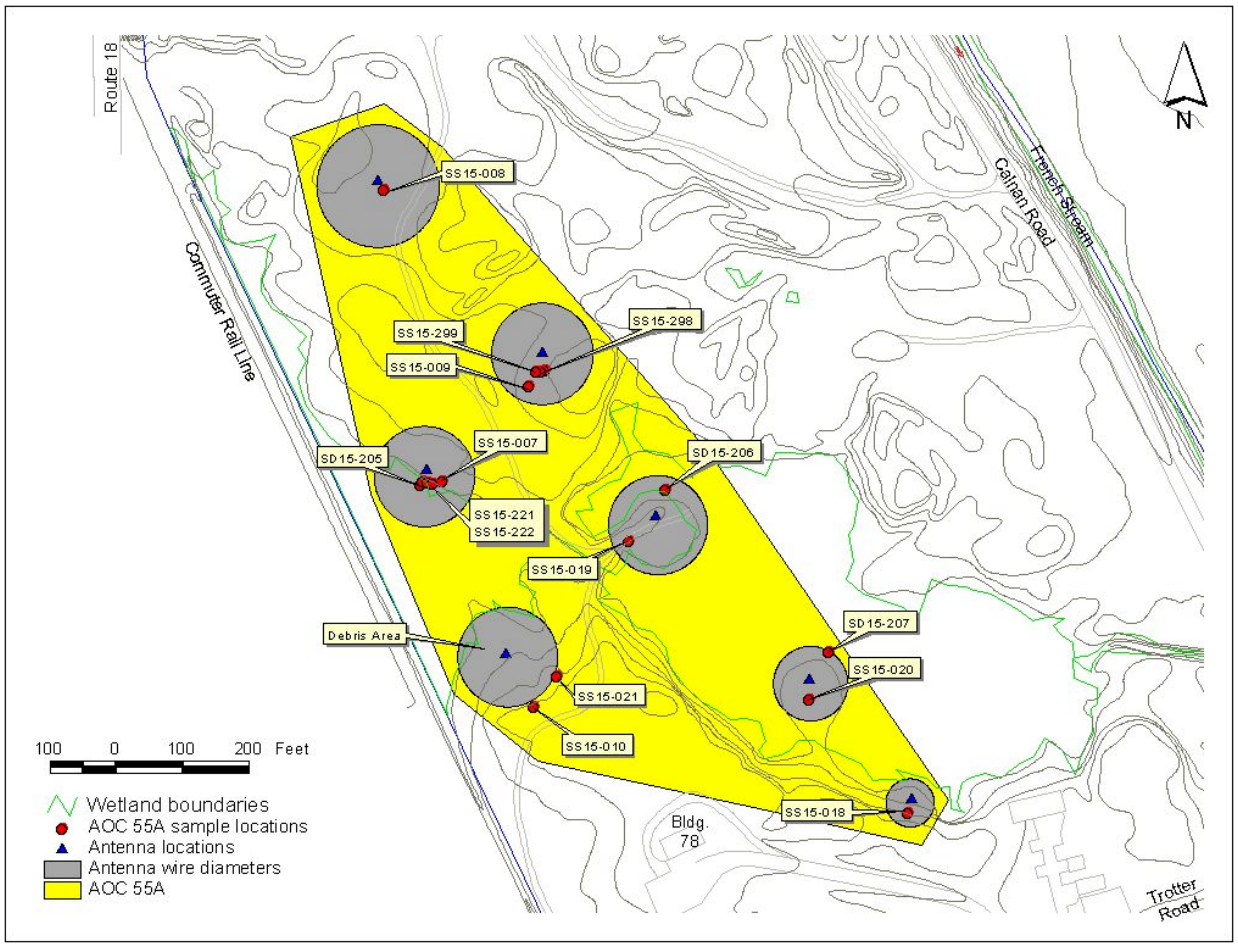

Figure 2-2. AOC 55A Sample Location Map

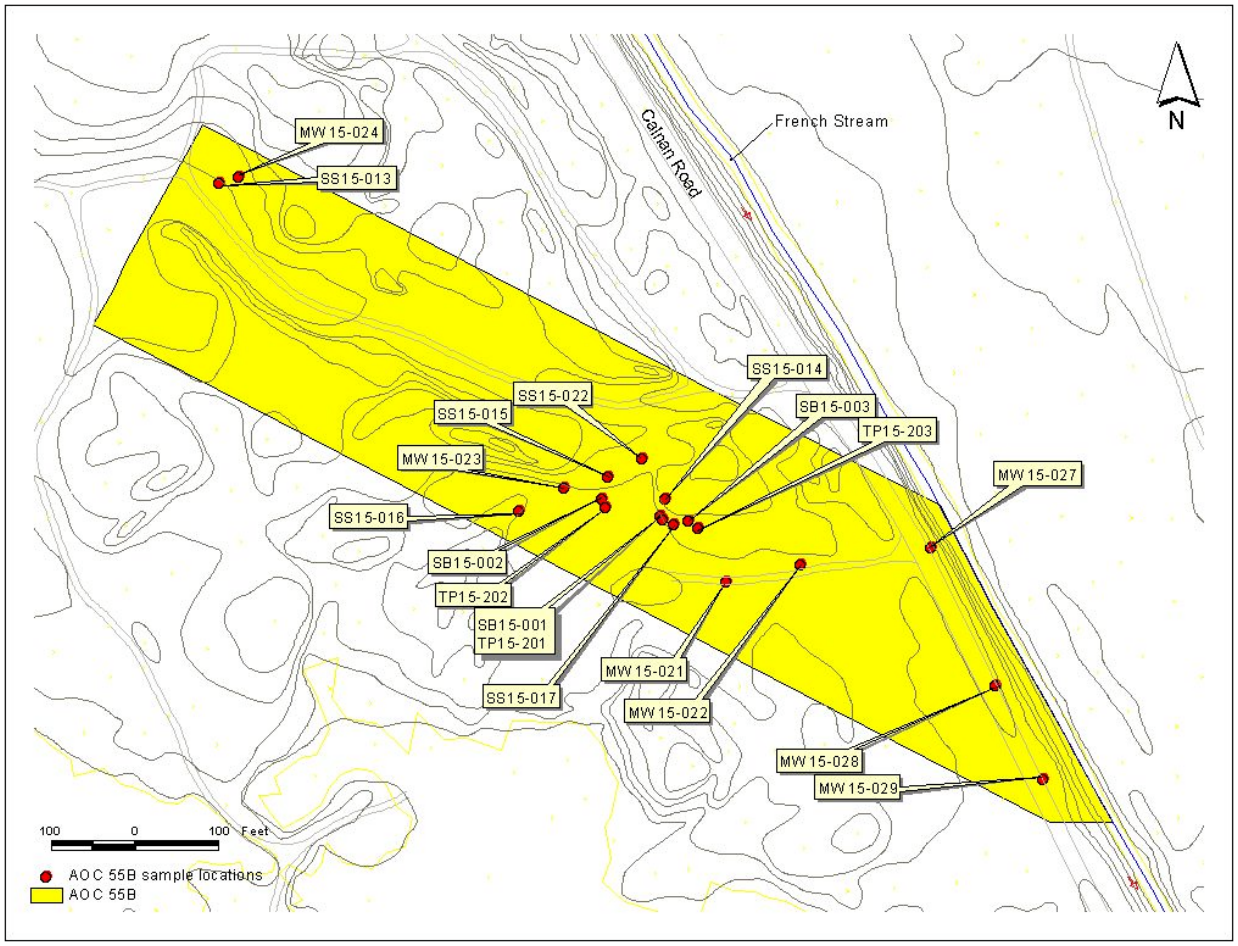

Figure 2-3. AOC 55B Sample Location Map.

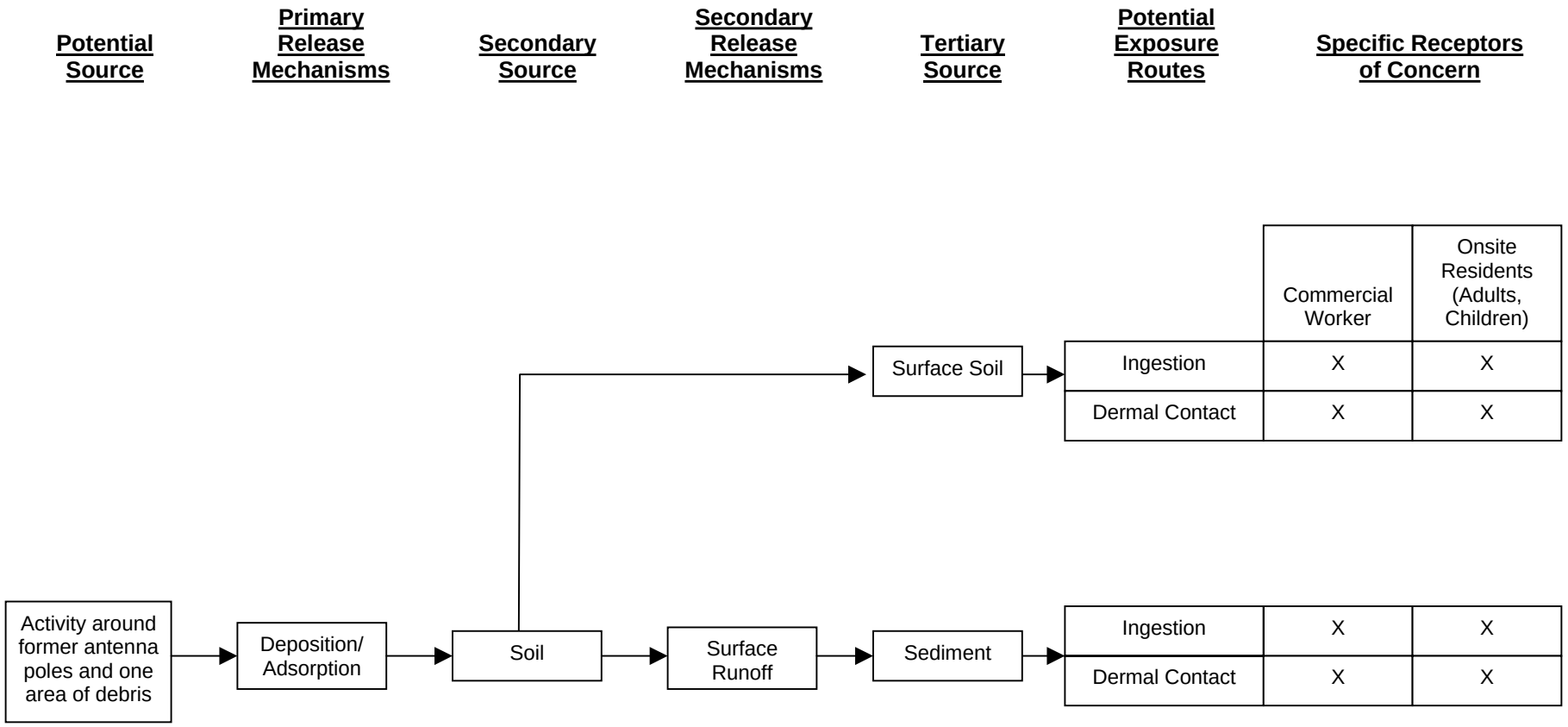

Figure 2-4. AOC 55A Human Health Conceptual Site Model.

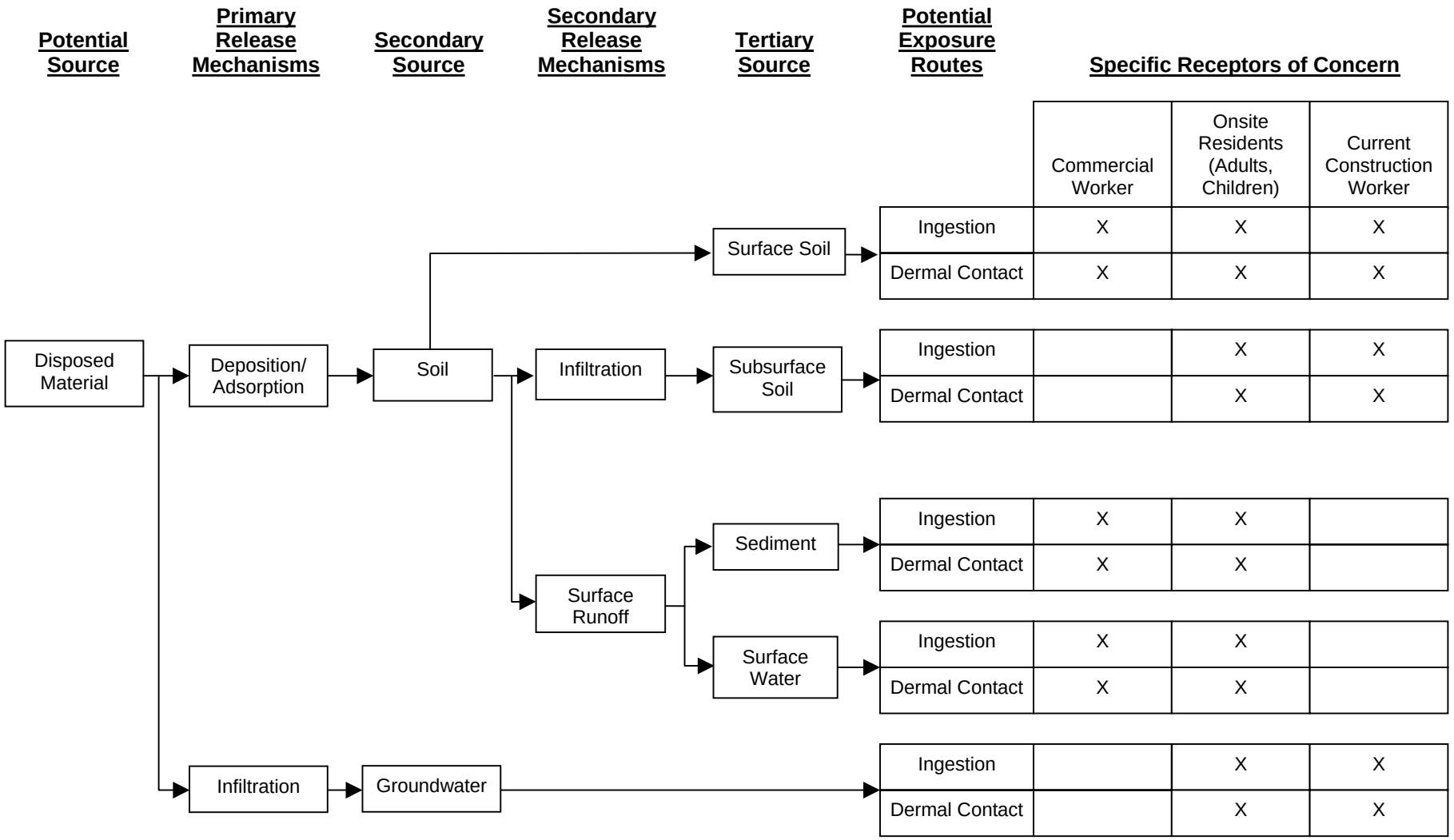

Figure 2-5. AOC 55B Human Health Conceptual Site Model.

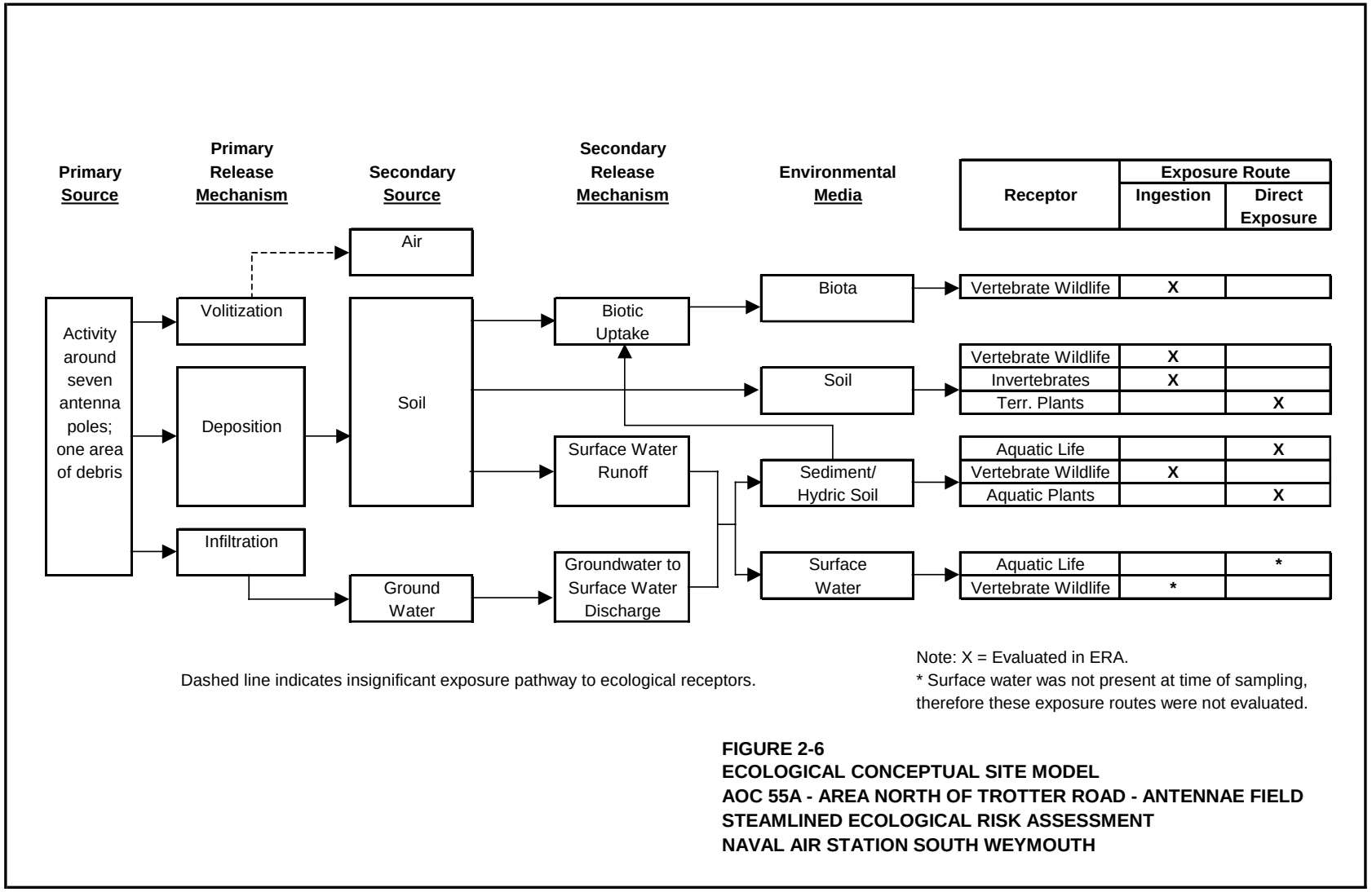

Figure 2-6. Ecological conceptual site model for AOC 55A.

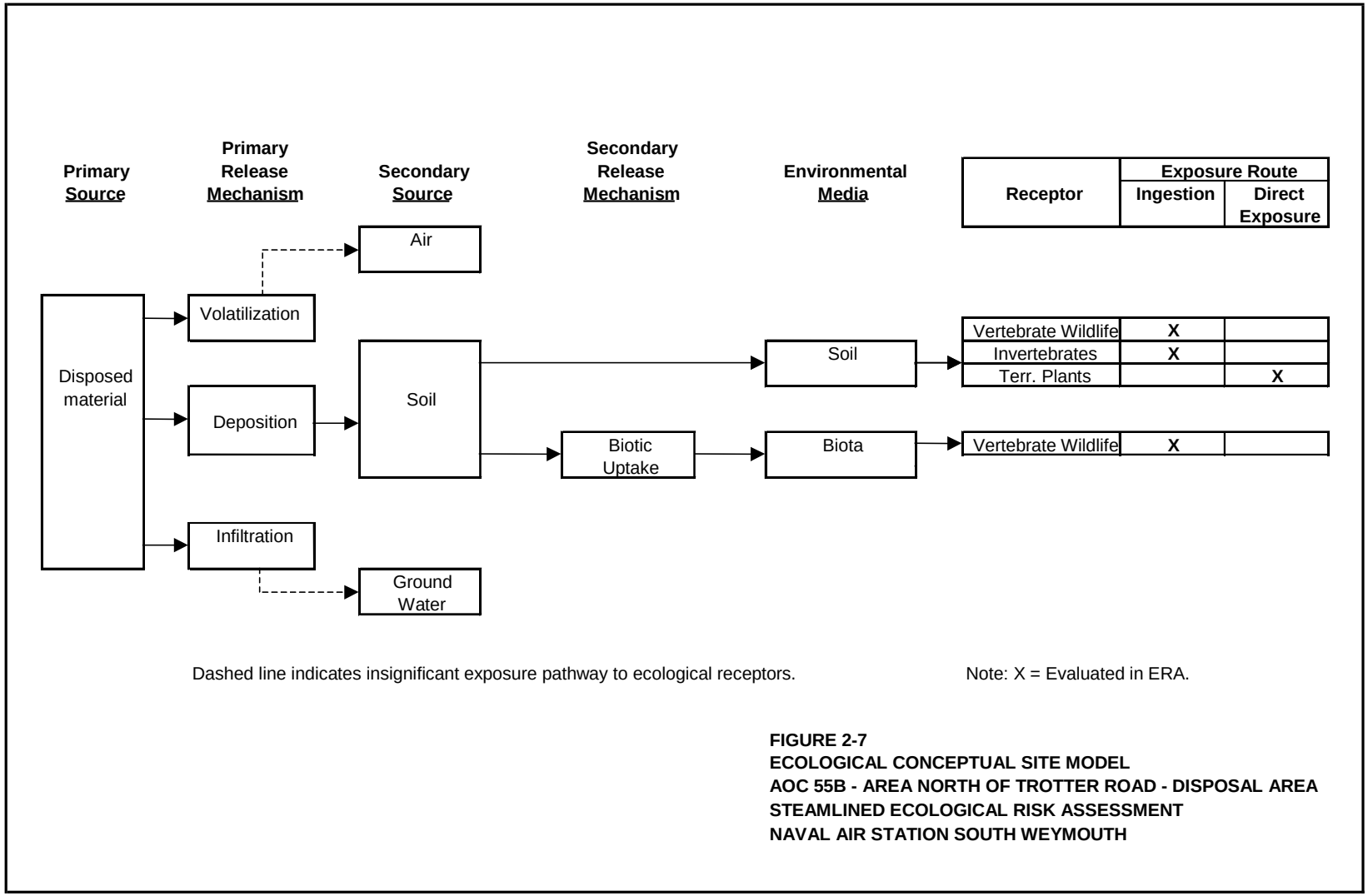

FIGURE 2-7
ECOLOGICAL CONCEPTUAL SITE MODEL
AOC 55B - AREA NORTH OF TROTTER ROAD - DISPOSAL AREA
STEAMLINED ECOLOGICAL RISK ASSESSMENT
NAVAL AIR STATION SOUTH WEYMOUTH

Figure 2-7. Ecological conceptual site model for AOC 55B.

TABLE 2-1 SUMMARY OF OPERABLE UNITS AND AREAS OF CONCERN

Site	Site Designation	Operable Unit Designation	Site Abbreviation	Site Description	Regulatory Status (as of October 2003)
West Gate Landfill	IR Program Site 1	1	WGL	Disposal area used for a variety of construction and demolition debris, municipal, and other waste materials.	PA, SI, RI, and FS completed. Preparing PRAP.
Rubble Disposal Area (Upland)	IR Program Site 2	2	RDA	Disposal area used for primarily building demolition debris.	PA, SI, RI, FS, and PRAP completed. Preparing ROD.
Small Landfill	IR Program Site 3	3	SL	Disposal area used primarily for concrete, metal, and wood.	PA, SI, RI, PRAP, and ROD (No Action with groundwater monitoring) completed. Monitoring program completed.
Fire Fighting Training Area	IR Program Site 4	4	FFTA	Area designated for dispensing fuels for igniting and extinguishing fires.	PA, SI, and RI completed. No FS required. Issued PRAP. Preparing ROD.
Tile Leach Field	IR Program Site 5	5	TLF	Sand bed used to receive and distribute treated industrial wastewater.	PA, SI, and RI completed. No FS required. Preparing PRAP.
Fuel Farm	IR Program Site 6	Not applicable (no longer CERCLA)	None	Tank farm and fuel dispensing area.	Site transferred into the MCP program based on exhibiting only fuel-related issues.
Sewage Treatment Plant	IR Program Site 7	7	STP	Wastewater treatment plant used primarily for domestic wastewater.	PA, SI, and RI completed. Preparing FS.
Abandoned Bladder Tank Fuel Storage Area	IR Program Site 8	8	ABTFSA	Area in which aboveground tanks temporarily were stored in support of aircraft refueling training operations.	Closed. PA, SI, and RI completed. No FS necessary. Completed No Action PRAP and ROD.
Rubble Disposal Area	IR Program Site 2	9	RDA	Steep sloping area adjacent to the RDA.	Combined with OU-2. No separate actions being performed.
Building 81	IR Program Site 9	10	None	Release of solvents from former motor pool.	Former MCP site moved to CERCLA program. Conducted *in situ* chemical oxidation pilot study for groundwater. Ongoing Work Plan development for RI.

NOTE: PA = Preliminary Assessment.
SI = Site Inspection.
RI = Remedial Investigation (Phase I and II).
FS = Feasibility Study.
PRAP = Proposed Remedial Action Plan.
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act.
ROD = Record of Decision.
MCP = Massachusetts Contingency Plan.
OU = Operable Unit.
AOC = Area of Concern.
TACAN = Tactical Air Navigation

TABLE 2-1 SUMMARY OF OPERABLE UNITS AND AREAS OF CONCERN

Site	Site Designation	Operable Unit Designation	Site Abbreviation	Site Description	Regulatory Status (as of October 2003)
Building 82	IR Program Site 10	11	None	Release of solvents from former aircraft hangar operations.	Former MCP site moved to CERCLA program. Ongoing Work Plan development for RI.
TACAN Area	AOC 3	None	None	Pile of rubble, soil, and metal debris containing PAHs and polychlorinated biphenyls (PCBs).	EBS Phase I, EBS Phase II. CERCLA removal action completed in Fall 2001 (51 tons of soil and debris removed). Pending PRAP/ROD.
Wyoming St. Area (former transmitter building)	AOC 8	None	None	Remnants of Building 70 demolition. Building housed radar electronics. Elevated PCB concentrations in soil.	Phase I, EBS Phase II. Navy is currently conducting a time critical removal action. PCB-soil is being disposed as hazardous waste under TSCA. Pending PRAP/ROD.
Supply Warehouse	AOC 13	None	None	Former railroad loading and unloading area. PAHs and pesticides in soil. Associated with RIA 88.	EBS Phase I, EBS Phase II. NFA under EBS. Conducted HHRA on soil. Removal action completed in September 2001 (8 tons of soil containing PAHs removed). Pending PRAP/ROD.
Water Tower Former Drum Storage Area	AOC 14	None	None	Staining between Hottensphere and Water Tower. Former drum storage area. Chromium, lead, and PAHs in soil.	EBS Phase I, Phase II. Conducted HHRA. Pending PRAP/ROD.
Water Tower Possible Lead in Soil	AOC 15	None	None	Possible lead paint in soil (paint chips from sandblasting of tower).	EBS Phase I, EBS Phase II. Time-Critical Removal Action completed in June 2000 addressed lead in soil (280 tons of soil removed). Additional removal completed in March 2002 (104 tons of soil) to address elevated lead reported from adjacent AOC 14 sample. Pending resolution of regulatory concerns regarding groundwater. Pending PRAP/ROD.
Pistol Range (Training Material Storage Building Area)	AOC 35	None	None	Small arms ammunition rounds at historic pistol range.	EBS Phase I. EBS Phase II. Approximately 134 tons of soil removed. Ongoing additional sampling. Pending PRAP/ROD.
Former Radio Transmitter Building Area	AOC 53	None	None	Alleged disposal area. Mainly PAHs and some inorganic constituents detected in sediment.	EBS Phase I, EBS Phase II. Ongoing Time Critical Removal Action. Pending PRAP/ROD.

TABLE 2-1 SUMMARY OF OPERABLE UNITS AND AREAS OF CONCERN

Site	Site Designation	Operable Unit Designation	Site Abbreviation	Site Description	Regulatory Status (as of October 2003)
Area North of Trotter Road - Antennae Field	AOC 55A	None	None	Seven antenna poles and the associated copper cables.	Phase I EBS, Phase II EBS. Removal action in September 2002 removed the antenna poles, platforms, grounding wires, and adjacent soil (840 tons of soil) and to lower ecological risk. Close-out Action Memorandum issued March 2003. No Further Action PRAP issued August 2003. Site closed with No Further Action ROD. [(a)]
Area North of Trotter Road - Debris Area	AOC 55B	None	None	Solid waste disposal over a large, heavily wooded area.	Phase I EBS, Phase II EBS. Debris removal in 1999. No Action PRAP issued August 2003. Site closed with No Action ROD.
Area North of Trotter Road - Wetland Area	AOC 55D	None	None	Metals, PCBs exceed ecological benchmarks in surface water and sediment.	Formerly part of AOC 55B. Ongoing investigation of ecological risks. Pending PRAP/ROD.
East Mat Drainage Ditch	AOC 60	None	None	Discolored water and solid waste identified in drainage ditch.	Phase I EBS, Phase II EBS. Removal action conducted in December 2002 on the western portion of ditch as part of the AOC 61 removal action. Ongoing additional sampling and ERA. Pending PRAP/ROD.
TACAN Ditch	AOC 61	None	None	Discolored water in drainage ditch.	EBS Phase I, EBS Phase II. Ongoing Removal Action (started Fall 2002) to address the TACAN Outfall drainage system and also including RIA 30B (Hangar 2) ditch, drainage swales, storm sewer lines, and catch basins. Pending PRAP/ROD.
East Street Gate Area	AOC 100	None	None	Debris disposal area. Various inorganics detected in surface soil at concentrations above background and ecological benchmarks.	EBS Phase I, EBS Phase II. Removal action completed in Fall 2001 (1,194 tons of soil and debris). Pending PRAP/ROD.

NOTE: (a) The Hazard Index of 1.1 for the future resident (see Table 2-2) does not exceed 1.0 for any target organ.

TABLE 2-2 SUMMARY OF AOC 55A HUMAN HEALTH RISK ASSESSMENT RESULTS

Scenario Evaluated	Media	Total Carcinogenic Risk	Total Non-Carcinogenic Risk (Hazard Index)
COMMERCIAL WORKER			
Ingestion/Dermal Contact	Surface Soil	1.1E-05	0.16
Ingestion/Dermal Contact	Sediment	9.2E-06	0.014
Commercial Worker Total		2.0E-05	0.18
FUTURE RESIDENT			
Ingestion/Dermal Contact	Surface Soil	2.3E-05	0.13 (adult)
Ingestion/Dermal Contact	Surface Soil		0.96 (child)
Ingestion/Dermal Contact	Sediment	5.1E-06	0.0029 (adult)
Ingestion/Dermal Contact	Sediment		0.11 (child)
Future Resident Total		2.8E-05	0.13 (adult) 1.1 (child)

NOTES:

- Information in this table is based on site conditions prior to the time-critical removal action.
- The risk estimates shown are for Reasonable Maximum Exposure (RME) conditions.
- Risk results taken from EA 2002. *Final Streamlined Human Health Risk Assessment, Area of Concern 55A*. Naval Air Station, South Weymouth, Massachusetts. November 25.
- The Hazard Index value greater than 1 is associated with manganese, which was not elevated above regional background concentrations. The oral reference dose for manganese that was used in the risk calculation was 2E-2 mg/kg-day.

TABLE 2-3 SUMMARY OF AOC 55B HUMAN HEALTH RISK ASSESSMENT RESULTS

Scenario Evaluated	Media	Total Carcinogenic Risk	Total Non-Carcinogenic Risk (Hazard Index)
COMMERCIAL WORKER			
Ingestion/Dermal Contact	Surface Soil	5.1E-06	0.031
Ingestion/Dermal Contact	Sediment	4.7E-06	0.029
Ingestion/Dermal Contact	Surface Water	1.1E-07	NC
Commercial Worker Total		9.9E-06	0.061
CONSTRUCTION WORKER			
Ingestion/Dermal Contact	Groundwater	8.4E-09	0.16
Construction Worker Total		8.4E-09	0.16
FUTURE RESIDENT (surface soil scenario)			
Ingestion/Dermal Contact	Surface Soil	8.8E-06	0.023 (adult)
Ingestion/Dermal Contact	Surface Soil		0.19 (child)
Ingestion/Dermal Contact	Groundwater	6.1E-05	2.3 (adult)
Ingestion/Dermal Contact	Groundwater		5.5 (child)
Ingestion/Dermal Contact	Surface Water	3.1E-08	NC (adult)
Ingestion/Dermal Contact	Surface Water		NC (child)
Ingestion/Dermal Contact	Sediment	2.3E-06	0.0028 (adult)
Ingestion/Dermal Contact	Sediment		0.11 (child)
Future Resident Total		7.2E-05	2.3 (adult)
			5.8 (child)
FUTURE RESIDENT (subsurface soil scenario)			
Ingestion/Dermal Contact	Subsurface Soil	2.4E-06	0.0053 (adult)
Ingestion/Dermal Contact	Subsurface Soil		0.042 (child)
Ingestion/Dermal Contact	Groundwater	6.1E-05	2.3 (adult)
Ingestion/Dermal Contact	Groundwater		5.5 (child)
Ingestion/Dermal Contact	Surface Water	3.1E-08	NC (adult)
Ingestion/Dermal Contact	Surface Water		NC (child)
Ingestion/Dermal Contact	Sediment	2.3E-06	0.0028 (adult)
Ingestion/Dermal Contact	Sediment		0.11 (child)
Future Resident Total		6.5E-05	2.3 (adult)
			5.6 (child)

NOTES:

- NC = Not calculated; not a chemical of potential concern in this medium or no dose-response value available.
- The risk estimates shown are for Reasonable Maximum Exposure (RME) conditions.
- Risk results taken from EA 2002. *Final Streamlined Human Health Risk Assessment, Area of Concern 55B – Area North of Trotter Road – Disposal Area and Area of Concern 55D – Area North of Trotter Road – Wetland Area*. Naval Air Station, South Weymouth, Massachusetts. December 13.

TABLE 2-4 AOC 55A – OCCURRENCE, DISTRIBUTION, AND SELECTION OF ECOLOGICAL CHEMICALS OF POTENTIAL CONCERN (COPCS) [(a)]

Analyte	Minimum Detected Conc.	Maximum Detected Conc.	Mean Conc.	Screening Value	Does the Max. Conc. Exceed the Screening Value?	COPC?	Reason for Elimination or Selection
Exposure Medium: Sediment							
Volatile Organic Compounds (ppb)							
Acetone	27	30.5	21.3	27.84	Yes	Yes	B
Semivolatile Organic Compounds (ppb)							
2-Methylnaphthalene	158.5	158.5	163	65	Yes	Yes	B
4-Methylphenol	78.5	78.5	78.5	NA	--	Yes	D
Acenaphthene	375	375	235	1,984	No	No	A
Acenaphthylene	725	725	352	1,984	No	No	A
Anthracene	700	700	343	220	Yes	Yes	B
Benzo(a)anthracene	1,500	1,500	610	320	Yes	Yes	B
Benzo(a)pyrene	3	468.5	158	370	Yes	Yes	B
Benzo(b)fluoranthene	38	9,900	3,332	240	Yes	Yes	B
Benzo(g,h,i)perylene	1,050	1,050	460	170	Yes	Yes	B
Benzo(k)fluoranthene	2,300	2,300	877	240	Yes	Yes	B
bis(2-ethylhexyl)phthalate	75	75	75	2,848,000	No	No	A
Butylbenzylphthalate	34	34	34	35,200	No	No	A
Carbazole	1,700	1,700	677	NA	--	Yes	D
Chrysene	35	13,000	4,361	340	Yes	Yes	B
Dibenzo(a,h)anthracene	425	425	144	60	Yes	Yes	B
Dibenzofuran	920	920	417	1,344	No	No	A
Fluoranthene	59	36,000	12,047	9,280	Yes	Yes	B
Fluorene	880	880	403	190	Yes	Yes	B
Indeno(1,2,3-cd)pyrene	1,400	1,400	577	200	Yes	Yes	B
Naphthalene	362.5	362.5	231	340	Yes	Yes	B
Phenanthrene	37	25,500	8,567	2,720	Yes	Yes	B
Phenol	53.5	53.5	53.5	99	No	No	A
Pyrene	48	21,000	7,037	490	Yes	Yes	B
Total PAH	183	115,586	38,686	4,000	Yes	Yes	B
Pesticides (ppb)							
Aldrin	11.05	11.05	4.3	2	Yes	Yes	B
4,4'-DDE	3.8	9.75	5.1	5	Yes	Yes	B
4,4'-DDD	10.05	10.05	4.5	8	Yes	Yes	B
4,4'-DDT	5.3	24.5	10.5	8	Yes	Yes	B
Endosulfan sulfate	19.5	19.5	7.6	17.28	Yes	Yes	B
Endrin	2.725	2.725	2.0	64	No	No	A

NOTE: (a) Information in this table is based on site conditions prior to the time-critical removal action.
NA = Not Available.
PPB = parts per billion
PPM = parts per million
Reasons for elimination or selection:
A - Maximum detected concentration is less than screening value.
B - Maximum detected concentration is greater than screening value.
C - Compound is an essential nutrient and is not anticipated to be toxic at the concentration found.
D - No screening value is available for this analyte.

TABLE 2-4 AOC 55A – OCCURRENCE, DISTRIBUTION, AND SELECTION OF ECOLOGICAL CHEMICALS OF POTENTIAL CONCERN (COPCS) [(a)]

Analyte	Minimum Detected Conc.	Maximum Detected Conc.	Mean Conc.	Screening Value	Does the Max. Conc. Exceed the Screening Value?	COPC?	Reason for Elimination or Selection
Endrin aldehyde	5.9	5.9	3.1	64	No	No	A
Endrin ketone	22	22	8.4	64	No	No	A
Heptachlor epoxide	375	375	126	5	Yes	Yes	B
Metals (ppm)							
Aluminum	5,900	8,700	7,317	NA	--	Yes	D
Arsenic	1.6	2.65	2.1	6	No	No	A
Barium	14	15	14.7	NA	--	Yes	D
Beryllium	0.335	0.41	0.30	NA	--	Yes	D
Calcium	1,100	1,600	1,433	NA	--	No	C
Chromium	8.1	12	9.9	26	No	No	A
Cobalt	3.3	6.35	4.9	NA	--	Yes	D
Copper	6.7	1,075	366	16	Yes	Yes	B
Iron	12,000	15,000	14,000	20,000	No	No	A
Lead	6.8	101.5	39.8	31	Yes	Yes	B
Magnesium	2,700	4,300	3,383	NA	--	No	C
Manganese	180	300	230	460	No	No	A
Mercury	0.01	0.026	0.02	0.20	No	No	A
Nickel	7.2	11	9.7	16	No	No	A
Potassium	280	320	300	NA	--	No	C
Sodium	72.5	110	79.2	NA	--	No	C
Vanadium	12	24	19	NA	--	Yes	D
Zinc	30	109	59	120	No	No	A
Exposure Medium: Surface Soil							
Volatile Organic Compounds (ppb)							
Acetone	22	52	37.7	NA	--	Yes	D
2-Hexanone	27	27	10.4	NA	--	Yes	D
Semivolatile Organic Compounds (ppb)							
bis(2-ethylhexyl)phthalate	84	880	544	200,000	No	No	A
Chrysene	190	4,500	1,932	NA	--	Yes	D
Carbazole	46	1,200	489	NA	--	Yes	D
Dibenzofuran	71	370	189	NA	--	Yes	D
Di-n-butyl phthalate	38	60	49	200000	No	No	A
Di-n-octyl phthalate	180	660	274	200000	No	No	A
4-Methylphenol	60	60	60	NA	--	Yes	D
Acenaphthene	58	170	97	20,000	No	No	A
Acenaphthylene	160	420	232	20,000	No	No	A
Anthracene	170	530	268	20,000	No	No	A
Benz(a)anthracene	42	570	251	NA	--	Yes	D
Benzo(a)pyrene	6.1	190	69.7	NA	--	Yes	D
Benzo(b)fluoranthene	92	4,300	1,604	NA	--	Yes	D
Benzo(g,h,i)perylene	38	770	293	NA	--	Yes	D
Benzo(k)fluoranthene	72	2,700	1,064	NA	--	Yes	D

TABLE 2-4 AOC 55A – OCCURRENCE, DISTRIBUTION, AND SELECTION OF ECOLOGICAL CHEMICALS OF POTENTIAL CONCERN (COPCS) [(a)]

Analyte	Minimum Detected Conc.	Maximum Detected Conc.	Mean Conc.	Screening Value	Does the Max. Conc. Exceed the Screening Value?	COPC?	Reason for Elimination or Selection
Dibenzo(a,h)anthracene	4.2	280	103	NA	--	Yes	D
Fluoranthene	290	9,200	3,162	NA	--	Yes	D
Fluorene	75	400	189	20,000	No	No	A
Indeno(1,2,3-cd)pyrene	46	960	359	NA	--	Yes	D
2-Methylnaphthalene	52	52	52	NA	--	Yes	D
Naphthalene	65	81	75	20,000	No	No	A
Phenanthrene	120	7,300	2,320	20,000	No	No	A
Phenol	44	44	44	30,000	No	No	A
Pyrene	270	6,100	3,067	NA	--	Yes	D
Total PAH	1,096	34,381	14,657	NA	--	Yes	D
Pesticides (ppb)							
Aldrin	5.6	120	24.7	NA	--	Yes	D
4,4'-DDE	7.2	90	25.5	12,000	No	No	A
4,4'-DDT	11	56	28.8	12,000	No	No	A
4,4'-DDD	3.8	7.1	3.5	12,000	No	No	A
Endosulfan sulfate	13	15	6.3	200,000	No	No	A
Endrin	20	20	5.3	NA	--	Yes	D
Endrin ketone	5	51	13.4	NA	--	Yes	D
Heptachlor epoxide	2.2	910	251	NA	--	Yes	D
Metals (ppm)							
Aluminum	7,800	9,300	8,433	50	Yes	Yes	B
Antimony	7.6	7.6	3.1	5	Yes	Yes	B
Arsenic	3.2	4.2	3.5	10	No	No	A
Barium	11	19	14.2	500	No	No	A
Beryllium	0.31	0.42	0.36	10	No	No	A
Calcium	1,100	1,500	1,300	NA	--	No	C
Chromium	10	35	15.8	0.4	Yes	Yes	B
Cobalt	4.9	5.9	5.3	20	No	No	A
Copper	20	600	273	50	Yes	Yes	B
Iron	17,000	20,000	17,500	NA	--	Yes	D
Lead	9.3	470	121	50	Yes	Yes	B
Magnesium	3,000	3,900	3,433	NA	--	No	C
Manganese	220	300	270	500	No	No	A
Mercury	0.010	0.068	0.030	0.10	No	No	A
Nickel	9.5	14	11.1	30	No	No	A
Potassium	330	450	367	NA	--	No	C
Sodium	86	110	62.3	NA	--	No	C
Vanadium	19	31	22.7	2	Yes	Yes	B
Zinc	39	79	53.5	50	Yes	Yes	B

TABLE 2-5 AOC 55B OCCURRENCE, DISTRIBUTION, AND SELECTION OF ECOLOGICAL CHEMICALS OF POTENTIAL CONCERN (COPCS)

Analyte	Minimum Detected Conc.	Maximum Detected Conc.	Mean Conc.	Screening Value	Does the Max. Conc. Exceed the Screening Value?	COPC?	Reason for Elimination or Selection
Exposure Medium: Surface Soil							
VOCs (ppb)							
Acetone	27	110	57.8	NA	--	Yes	D
2-Butanone	9.9	13	11.8	NA	--	Yes	D
Toluene	2.4	2.4	2.4	NA	--	Yes	D
SVOCs/PAHs (ppb)							
4-Methylphenol	83	83	83	NA	--	Yes	D
Benzo(a)pyrene	5.8	66	23.3	NA	--	Yes	D
Benzo(b)fluoranthene	97	100	98.5	NA	--	Yes	D
Benzo(g,h,i)perylene	400	400	238	NA	--	Yes	D
Benzo(k)fluoranthene	400	400	238	NA	--	Yes	D
Fluoranthene	89	93	91	NA	--	Yes	D
Indeno(1,2,3-cd)pyrene	400	400	238	NA	--	Yes	D
Pyrene	87	140	110	NA	--	Yes	D
Total PAHs	9.5	1,512	427	NA	--	Yes	D
Pesticides (ppb)							
4,4'-DDE	5.3	50	18.8	12,000	No	No	A
4,4'-DDT	13	65	28.8	12,000	No	No	A
4,4'-DDD	5	23	11.2	12,000	No	No	A
Heptachlor epoxide	12	12	3.2	NA	--	Yes	D
Metals (ppm)							
Aluminum	4,280	7,730	5,296	50	Yes	Yes	B
Arsenic	1.6	8.2	3.4	10	No	No	A
Beryllium	0.32	0.38	0.26	10	No	No	A
Cadmium	0.7	0.7	0.19	4	No	No	A
Calcium	427	931	652	NA	--	No	C
Chromium	5.2	15.6	9.8	0.4	Yes	Yes	B
Cobalt	2.4	3.2	2.7	20	No	No	A
Copper	7.3	14.9	10	50	No	No	A
Cyanide	0.67	0.67	0.23	NA	--	Yes	D
Iron	10,100	19,100	13,800	NA	--	Yes	E
Lead	19	39.2	27.9	50	No	No	A
Magnesium	966	1,440	1,235	NA	--	No	C
Manganese	130	181	160	500	No	No	A
Mercury	0.97	0.97	0.24	0.1	Yes	Yes	B

NOTE:
NA = Not Available.
PPB = parts per billion
PPM = parts per million
Reasons for elimination or selection:
A - Maximum detected concentration is less than screening value.
B - Maximum detected concentration is greater than screening value.
C - Compound is an essential nutrient and is not anticipated to be toxic at the concentration found.
D - No screening value is available for this analyte.
E - Compound is an essential nutrient and may be toxic at the concentration found.

TABLE 2-5 AOC 55B OCCURRENCE, DISTRIBUTION, AND SELECTION OF ECOLOGICAL CHEMICALS OF POTENTIAL CONCERN (COPCS)

Analyte	Minimum Detected Conc.	Maximum Detected Conc.	Mean Conc.	Screening Value	Does the Max. Conc. Exceed the Screening Value?	COPC?	Reason for Elimination or Selection
Nickel	4.1	7	5.6	30	No	No	A
Potassium	124	293	237	NA	--	No	C
Silver	0.12	0.22	0.16	2	No	No	A
Sodium	158	174	103	NA	--	No	C
Vanadium	12.8	24.1	16.5	2	Yes	Yes	B
Zinc	23.3	299	85.2	50	Yes	Yes	B

TABLE 2-6 AOC 55A – ANTENNAE FIELD – SUMMARY OF ECOLOGICAL RECEPTORS, EXPOSURE ROUTES, ENDPOINTS, AND FINDINGS [(a)]

Potential Receptor	Sensitive Environment (Yes/No)	Sensitive Species (Yes/No)[(b)]	Exposure Route Evaluated	Assessment Endpoints	Measurement Endpoints	Findings
Terrestrial Plants	No	No	Direct uptake from soil	Adverse effects on the survival, growth, and reproduction of terrestrial plant communities	• Comparison of surface soil COPC concentrations to plant soil screening benchmarks	Concentrations of some metals in surface soil exceeded terrestrial plant benchmark values, but further action not recommended because of uncertainty of soil benchmarks.
Terrestrial Invertebrates	No	No	Ingestion of soil	Adverse effects on the survival, growth, and reproduction of terrestrial invertebrate communities	• Comparison of surface soil COPC concentrations to invertebrate soil screening benchmarks	Concentrations of chromium and copper in surface soil exceeded the terrestrial invertebrate benchmark values, but further action not recommended because of uncertainty of soil benchmarks.
Terrestrial Vertebrate Wildlife	No	No	Ingestion of surface soil Ingestion of food items that may contain accumulated chemicals from the soil.	Adverse effects on the maintenance of wildlife populations and communities within the habitats present at AOC 55A	• Comparison of potential dietary exposures, calculated using concentrations of COPCs in the soil, to wildlife toxicity reference values	Potential for unacceptable risk to terrestrial small mammal and bird receptors from the concentrations of various metals in surface soil.
Wetland Plants	No	No	Direct contact with sediment or direct contact with chemicals contained within the sediment porewater	Adverse effects on the survival, growth, and reproduction of wetland plant communities	• Comparison of sediment COPC concentrations to plant soil screening benchmarks	Concentration of copper in sediment exceeded the terrestrial plant benchmark value, but further action not recommended because of uncertainty of soil benchmarks.

NOTES:
(a) Information in this table is based on site conditions prior to the time-critical removal action.
(b) One state-listed species of special concern has been sited at AOC 55A. The lack of toxicity data for this species precludes the use of this species as a wildlife receptor.
AOC = Area of Concern
COPC = Chemical of Potential Concern.

TABLE 2-6 AOC 55A – ANTENNAE FIELD – SUMMARY OF ECOLOGICAL RECEPTORS, EXPOSURE ROUTES, ENDPOINTS, AND FINDINGS [(a)]

Potential Receptor	Sensitive Environment (Yes/No)	Sensitive Species (Yes/No)[(b)]	Exposure Route Evaluated	Assessment Endpoints	Measurement Endpoints	Findings
Aquatic Life	No	No	Direct contact with sediment	Adverse effects on the survival and maintenance of a well-balanced benthic macroinvertebrate, amphibian, and plant community structure and function	• Comparison of sediment COPC concentrations to sediment screening benchmarks	Potential for unacceptable risk from the concentrations of various PAHs, pesticides, and copper in sediment.
Wetland Vertebrate Wildlife	No	No	Ingestion of sediment Ingestion of food items that may contain accumulated chemicals from sediment	Adverse effects on the maintenance of wildlife populations and communities within the habitats present at AOC 55A	• Comparison of potential dietary exposures, calculated using concentrations of COPCs in the sediment, to wildlife toxicity reference values	No unacceptable risk to wetland bird receptor. Potential for unacceptable risk to wetland small mammal receptor from concentrations of PAHs in sediment.

TABLE 2-7 AOC 55B – DEBRIS AREA – SUMMARY OF ECOLOGICAL RECEPTORS, EXPOSURE ROUTES, ENDPOINTS, AND FINDINGS

Potential Receptor	Sensitive Environment (Yes/No)	Sensitive Species (Yes/No)	Exposure Route Evaluated	Assessment Endpoints	Measurement Endpoints	Findings
Terrestrial Plants	No	No	Direct uptake from soil	Adverse effects on the survival, growth, and reproduction of terrestrial plant communities	• Comparison of surface soil COPC concentrations to plant soil screening benchmarks	Concentrations of two metals in surface soil exceeded terrestrial plant benchmark values, but further action not recommended because of uncertainty of soil benchmarks.
Terrestrial Invertebrates	No	No	Ingestion of soil	Adverse effects on the survival, growth, and reproduction of terrestrial invertebrate communities	• Comparison of surface soil COPC concentrations to invertebrate soil screening benchmarks	Concentrations of chromium in surface soil exceeded the terrestrial invertebrate benchmark values, but further action not recommended because of uncertainty of soil benchmarks.
Terrestrial Vertebrate Wildlife	No	No	Ingestion of surface soil Ingestion of food items that may contain accumulated chemicals from the soil.	Adverse effects on the maintenance of wildlife populations and communities within the habitats present at AOC 55A	• Comparison of potential dietary exposures, calculated using concentrations of COPCs in the soil, to wildlife toxicity reference values	No unacceptable risk to terrestrial small mammal receptors. For the terrestrial bird evaluated (the robin), the average concentration of iron in the soil produced an HQ of 2.0. However, iron is a common earth element and an essential nutrient, and the concentration of iron in the surface soil was not considered likely to result in unacceptable ecological risk.

NOTES:
AOC = Area of Concern
COPC = Chemical of Potential Concern.
HQ = Hazard Quotient

PART 3—RESPONSIVENESS SUMMARY

I. STAKEHOLDER ISSUES AND NAVY RESPONSES

Verbal comments were received from one person during the public hearing on the Proposed Plan for AOC 55A and AOC 55B. Written comments were received from one person during the public comment period. A copy of the transcript for the public hearing is provided as Appendix E.2 of this ROD. Comment responses are provided in Sections II and III of this Responsiveness Summary.

II. TECHNICAL AND LEGAL ISSUES

The comments received during the public comment period were requests for clarification or additional information and did not disagree with the Proposed Plan. Therefore, the Navy and EPA believe that these questions have been addressed herein and that there is sufficient technical basis to proceed with the No Further Action decision for AOC 55A and the No Action decision for AOC 55B. By proceeding with the ROD, the Navy has completed all required CERCLA actions/investigations at AOCs 55A and 55B.

III. COMMENT RESPONSES

Written comment from Bill Cotter, Weymouth on 10 September 2003

Hi Mark. (AOC 55B) While CERCLA does not impact on solid waste cleanup directly, the NAVY's input to the state/tri town on what needs to be done may help define a future plan. Your input is requested.

Response: It is agreed that solid waste is not regulated under CERCLA Section 120(h). However, as part of the ongoing property transfer process, the Navy has been coordinating with the state agencies and the SSTTDC on matters of solid waste debris present at the former NAS South Weymouth. In a letter of 25 July 2002 and elsewhere, MADEP has indicated their willingness to work with either the SSTTDC or the Navy to resolve the disposition of solid waste on property being transferred. To date, the Navy has been providing MADEP and SSTTDC with inventories of and plans of action for solid waste debris items identified within the Navy's Finding of Suitability to Transfer (FOST) properties (i.e., property being transferred as is). Plans for addressing solid waste identified within Navy property which may be transferred via Early Transfer mechanisms under CERCLA would be outlined in a Covenant Deferral Request document, which would be prepared by the Navy in coordination with SSTTDC, EPA, and MADEP.

Verbal comments from Mary Parsons, Rockland on 10 September 2003

Concerning areas of concern, 55B, there is a statement, "The average concentration of chromium in surface soil also exceeded the terrestrial invertebrate benchmark values." I didn't see where you stated what type of chromium. And I would like to know an answer to that.

Response: The chromium referred to is Total Chromium.

And it also says, "However, because of the uncertainties associated with the soil benchmark values, further action at this AOC was not recommended based on these exceedances." I don't quite understand how you, when you say no further action when it exceeds benchmark. So I would like that clarified.

Response: None of the surface soil screening values (benchmarks) available in the literature have been accepted by regulatory agencies for use in estimating ecological effects from exposure to chemicals. Therefore, recommendations for action cannot be made based on soil benchmark exceedances alone. The soil benchmarks that are used in the ERA are used for screening purposes only. Any chemical for which a soil benchmark is exceeded, or for which no benchmark is available, is further assessed in the ERA as part of the terrestrial vertebrate wildlife receptor evaluation. Hazard Quotients are calculated for terrestrial vertebrate wildlife receptors, and are the basis for the recommendation regarding whether any action is needed. In the case of AOC 55B, the Hazard Quotients calculated for exposure to total chromium in surface soil by terrestrial vertebrate wildlife were less than 1; therefore, no action was warranted.

APPENDIX A: MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION LETTER OF CONCURRENCE

Refer to attached copy.

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

MITT ROMNEY
Governor

KERRY HEALEY
Lieutenant Governor

ELLEN ROY HERZFELDER
Secretary

ROBERT W. GOLLEDGE, Jr.
Commissioner

Ms. Susan Studlien
Director, Site Remediation and Restoration
U.S. Environmental Protection Agency
JFK Building
Boston, MA 02203-2211

Re: Record of Decision
Areas of Concern 55A and 55B
Former South Weymouth NAS
RTN 3-2621
October 15, 2003

Dear Ms. Studlien:

The Department of Environmental Protection has reviewed the *Record of Decision for Area of Concern 55A – North of Trotter Road – Antenna Field, Area of Concern 55B – North of Trotter Road – Debris Area, Naval Air Station South Weymouth*, received October 8, 2003. The Record of Decision (ROD) summarized the results from the associated site assessments, human health risk assessments, ecological risk assessments, and the Area of Concern (AOC) 55A removal action completion report, and provides the Navy's rationale for selecting a No Further Action decision for AOC 55A and a No Action decision for AOC 55B. Based on the results from the site investigations, risk assessments, and AOC 55A closeout report, which indicate that current conditions do not pose a significant risk to human health or the environment, the Department offers our concurrence with the ROD.

If you have any questions or comments, please contact David Chaffin, Project Manager (617 348-4005), or Anne Malewicz, Federal Facilities Section Chief (617 292-5659).

Very truly yours,

Deirdre C. Menoyo

Deirdre C. Menoyo
Assistant Commissioner
Bureau of Waste Site Cleanup

cc: D. Barney, USN-S. Weymouth
P. Marajh-Whittemore, USEPA
Executive Director, SSTTDC
RAB Members
E. Worrall, MADEP-Boston

APPENDIX B: REFERENCES

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APPENDIX C: GLOSSARY

Areas of Concern (AOCs)—Former Environmental Baseline Survey Review Item Areas currently being investigated under CERCLA. These sites require risk assessments to identify the potential current and future effects on human health and the environment.

Background Level—Chemicals (or concentrations of chemicals) present in the environment due to naturally occurring geochemical processes and sources, or to human activities not related to specific point sources or site releases.

Benchmark—Concentration of a chemical considered to be protective of human health or the environment.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)—A federal law passed in 1980 and amended in 1986 by the Superfund Amendments and Reauthorization Act. The Act created a special tax that goes into a Trust Fund, commonly known as Superfund, to investigate and clean up abandoned or uncontrolled hazardous waste sites. Navy compliance with CERCLA/Superfund Amendments and Reauthorization Act (see Installation Restoration Program definition) is funded by the Department of Defense under the Defense Environmental Restoration Act.

Chemical of Potential Concern (COPC)—A compound or element identified as a possible source of risk, based upon a comparison between the chemical concentration and established screening levels.

Environmental Baseline Survey (EBS)—An environmental assessment conducted by the Navy at Bases that have been closed under the Base Realignment and Closure (BRAC) Act.

Excess Lifetime Cancer Risk Range—Upper bound probability of an individual developing cancer as a result of a lifetime of exposure to a particular level of a potential carcinogen. The predicted cancer risk level is compared against an acceptable range of 1×10^{-4} to 1×10^{-6}.

Groundwater—Water found beneath the Earth's surface in soil pore spaces and fractures in geologic formations. When formations yield water in sufficient quantity and quality (i.e., an aquifer), groundwater is often used as a water supply.

Hazard Index—A measure of the potential for toxic (non-cancer related) effects from exposure to non-carcinogenic chemicals. A Hazard Index of 1 or less is considered an acceptable risk level by the U.S. Environmental Protection Agency.

National Priorities List (NPL)—U.S. Environmental Protection Agency's list of sites for priority cleanup under the Superfund program.

Operable Unit—Operable units are site management tools that define discrete steps toward comprehensive actions, based on geographical portions of a site, specific site problems, initial phases of action, or any set of actions performed over time or concurrently at different parts of the site.

Proposed Plan—A CERCLA document that summarizes the preferred cleanup remedy for a site and provides the public with information on how they can participate in the remedy selection process.

Record of Decision (ROD)—A legal, technical, and public document under CERCLA that explains the rationale and final cleanup decision for a site. It contains a summary of the public's involvement in the cleanup decision.

Responsiveness Summary—A CERCLA document containing the responses to the formal comments submitted by the public regarding the Proposed Plan. This summary is issued as an appendix to the ROD.

Review Item Areas (RIAs)—Sites identified during a Phase I Environmental Baseline Survey that require further study for potential contamination.

Streamlined Risk Assessment—An ecological or human health risk assessment using a limited number of conservative exposure pathways, receptors, and exposure assumptions, agreed upon in advance with the regulatory agencies. Results indicating acceptable risk under the most conservative approach (for example, the residential scenario), would therefore indicate acceptable risk under all other scenarios.

APPENDIX D: ADMINISTRATIVE RECORD INDEX

File No.	Vol.	Document No.	Document Type[(a)]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
1.0 SITE ASSESSMENT									
1.8 Environmental Baseline Survey									
1.8			R	Final Report, Phase I EBS	11/18/96	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
1.8			R	Phase I EBS Report Errata	11/10/97	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
1.8			R	Phase II EBS Field Reports for RIAs 39D, 39E, 39G, 39H, 55A, 56, 84, 78D, 78E and 57	6/4/99	Stone & Webster	U.S. Department of the Navy	A.R. File	55A
1.8			R	Phase II EBS Field Reports for RIAs 47, 52, 53, 55B, 61, 78C, 95B, 96A, 96B, 100, 101 and 105	12/1/99	Stone & Webster	U.S. Department of the Navy	A.R. File	55B
1.8			R	Draft Phase II EBS Decision Document for RIA 55B, Area North of Trotter Road – Disposal Area	1/18/01	Stone & Webster	U.S. Department of the Navy	A.R. File	55B
1.8			R	Draft Phase II EBS Decision Document for RIA 55A, Area North of Trotter Road – Antennae Field	1/30/01	Stone & Webster	U.S. Department of the Navy	A.R. File	55A
1.8			L	Responses to EPA and DEP comments on the Draft Phase II EBS Decision Document for RIA 55A, Area North of Trotter Road – Antennae Field	5/17/01	Stone & Webster	U.S. Department of the Navy	A.R. File	55A
1.8			L	Responses to EPA and DEP comments on the Draft Phase II EBS Decision Document for RIA 55B, Area North of Trotter Road – Disposal Area	5/17/03	Stone & Webster	U.S. Department of the Navy	A.R. File	55B
1.8			R	Phase II EBS Field Report RIA 55B - Area North of Trotter Road – Disposal Area	1/02	Stone & Webster	U.S. Department of the Navy	A.R. File	55B
1.8			R	Draft Phase II EBS Field Report, RIA 55A, Area North of Trotter Road, Antennae Field	3/02	Stone & Webster	U.S. Department of the Navy	A.R. File	55A

File No.	Vol.	Document No.	Document Type[(a)]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
1.9 Work Plans									
1.9			R	Final Phase II Environmental Baseline Survey Sampling Work Plan (Rev. 1)	10/13/98	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
1.9			M	South Weymouth EBS Phone Conferences	9/5/00	Navy	BRAC Cleanup Team	A.R. File	55B
1.9			M	South Weymouth Summary of Conference Call	11/7/00	EPA	U.S. Department of the Navy	A.R. File	55A, 55B
1.9			R	Final Work Plan for RIA 55A, Area North of Trotter Road, Antennae Field.	2/8/01	Stone & Webster	U.S. Department of the Navy	A.R. File	55A
1.9			M	Meeting Notes, EBS Phase II (RIA 55A)	2/8/01	Stone & Webster	U.S. Department of the Navy	A.R. File	55A, 55B
1.9			M	Meeting Notes	4/18/01	Stone & Webster	U.S. Department of the Navy	A.R. File	55B
1.9			R	Final Work Plan for RIA 55B	5/21/01	Stone & Webster	U.S. Department of the Navy	A.R. File	55B
3.0 REMEDIAL INVESTIGATION									
3.2 Sampling and Analysis Data									
3.2			L	Letter re: (1) Background Data Set Development for NAS South Weymouth, Revision 2, December 8, 1999; (2) Use of SWNAS Background Data Set for Evaluation of the Environmental Baseline Study Review Item Area Data, December 8, 1999, Draft, at the South Weymouth Naval Air Station	99	Patty Marajh-Whittemore, EPA	Mark Leipert, Northern Division	A.R. File	55A
3.2		3.2-2	R	Final Summary Report of Background Data Summary Statistics for Naval Air Station South Weymouth, Massachusetts	2/24/00	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
3.2			R	Errata to the Final Summary Report of Background Data Summary Statistics	3/8/00	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
3.2			R	Supplement to Final Summary Report of Background Data Summary Statistics for NAS South Weymouth	11/08/02	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide

File No.	Vol.	Document No.	Document Type[(a)]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
3.6 Remedial Investigation Reports									
3.6		3.6-2	R	Turtle Investigation Report for CY 1999	4/00	ENSR	U.S. Department of the Navy	A.R. File	Basewide
3.6			R	Final Focused Groundwater Flow Direction Report	7/14/00	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
3.6		3.6-4	R	Basewide Groundwater Flow Assessment Phase II Remedial Investigation	12/00	Tetra Tech (ENSR)	U.S. Department of the Navy	A.R. File	Basewide
3.6		3.6-8	R	Turtle Investigation Report for CY 2000	4/01	ENSR	U.S. Department of the Navy	A.R. File	Basewide
3.6		3.6-12	R	Potential Effects of Elevated pH Values on the Representativeness of Groundwater Samples, NAS South Weymouth (secondary document, supplement to Phase II RI)	2/02	ENSR	U.S. Department of the Navy	A.R. File	Basewide
3.6			L	Responses to EPA and DEP comments on the Draft Ecological Risk Assessment for AOC 55A	7/12/02	Stone & Webster	U.S. Department of the Navy	A.R. File	55A
3.6			L	Responses to EPA and DEP comments on the Draft Ecological Risk Assessment for AOC 55B	7/12/02	Stone & Webster	U.S. Department of the Navy	A.R. File	55A
3.6			R	Final Streamlined Ecological Risk Assessment, Debris Area North of Trotter Road (RIA 55B/55D)	11/02	Stone & Webster	U.S. Department of the Navy	A.R. File	55B
3.6			R	Final Streamlined Ecological Risk Assessment, Area North of Trotter Road – Antennae Field (RIA 55A)	11/13/02	Stone & Webster	U.S. Department of the Navy	A.R. File	55A
3.6			R	Final Streamlined Human Health Risk Assessment, AOC 55B – Area North of Trotter Road – Disposal Area, Area of Concern 55D – Area North of Trotter Road – Wetland Area	11/14/02	EA	U.S. Department of the Navy	A.R. File	55B, 55D
3.6			R	Final Streamlined Human Health Risk Assessment, AOC 55A	12/25/02	EA	U.S. Department of the Navy	A.R. File	55A

File No.	Vol.	Document No.	Document Type[(a)]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
3.7 Work Plans and Progress Reports									
3.7			M	Meeting Minutes Streamlined Risk Assessment Process, South Weymouth Naval Air Station	9/00	EA	U.S. Department of the Navy	A.R. File	55A, 55B
3.7			R	Final Streamlined Human Health Risk Assessment Work Plan, Areas of Concern at NAS South Weymouth	9/01	EA	U.S. Department of the Navy	A.R. File	Basewide AOCs
3.7			R	Final Streamlined Ecological Risk Assessment Work Plan	5/8/02	Stone & Webster	U.S. Department of the Navy	A.R. File	Basewide
3.8 Correspondence									
3.8			L	MADEP comments on the Draft Streamlined Ecological Risk Assessment for AOC 55A of 5/6/02	5/20/02	MADEP	U.S. Department of the Navy	A.R. File	55A
3.8			L	MADEP comments on the Draft Streamlined Ecological Risk Assessment for AOC 55B of 5/6/02	5/20/02	MADEP	U.S. Department of the Navy	A.R. File	55B
3.8			L	EPA comments on the Draft Streamlined Ecological Risk Assessment for AOC 55A of 5/6/02	6/6/02	EPA	U.S. Department of the Navy	A.R. File	55A
3.8			L	EPA comments on the Draft Streamlined Ecological Risk Assessment for AOC 55B of 5/6/02	6/7/02	EPA	U.S. Department of the Navy	A.R. File	55B
3.8			L	Responses to EPA comments on the Draft Streamlined Ecological Risk Assessment for AOC 55A of 5/6/02	8/02	U.S. Department of the Navy	EPA	A.R. File	55A
3.8			L	Responses to EPA comments on the Draft Streamlined Ecological Risk Assessment for AOC 55A of 5/6/02	8/02	U.S. Department of the Navy	EPA	A.R. File	55B
3.8			L	EPA Comments on the Navy Responses to EPA comments on the Draft Streamlined Ecological Risk Assessment for AOC 55A of 5/6/02	9/16/02	EPA	U.S. Department of the Navy	A.R. File	55A
3.8			L	EPA Comments on the Navy Responses to EPA comments on the Draft Streamlined Ecological Risk Assessment for AOC 55B of 5/6/02	9/19/02	EPA	U.S. Department of the Navy	A.R. File	55B

File No.	Vol.	Document No.	Document Type[(a)]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
3.8			L	Responses to EPA and MADEP comments on the Streamlined Ecological Risk Assessments for AOCs 55A & 55B	7/10/02	U.S. Department of the Navy	EPA, MADEP	A.R. File	55A, 55B
3.9 Health Assessments									
3.9		3.9-1	R	Public Health Assessment for Naval Air Station South Weymouth, Massachusetts CERCLIS No. MA2170022022	3/98	U.S. Department of Health and Human Services	Public	A.R. File	Basewide
3.9		3.9-2	R	Public Health Assessment for Naval Air Station South Weymouth, Massachusetts CERCLIS No. MA2170022022	9/99	U.S. Department of Health and Human Services	Public	A.R. File	Basewide
3.9		3.9-3	R	Public Health Assessment for Naval Air Station South Weymouth, Massachusetts CERCLIS No. MA2170022022	8/30/01	U.S. Department of Health and Human Services	Public	A.R. File	Basewide
4.0 FEASIBILITY STUDY									
4.8 Proposed Plan									
4.8			P	Proposed Plan, Areas of Concern 55A (Antennae Field) and 55B (Debris Area), NAS South Weymouth, Weymouth, Massachusetts	8/29/03	EA	Public	A.R. File	55A, 55B
4.9 Correspondence									
4.9			L	EPA Comments on the Draft Proposed Plan for AOCs 55A and 55B of 6/13/03	7/16/03	EPA	U.S. Department of the Navy	A.R. File	55A, 55B
4.9			L	MADEP Comments on the Draft Proposed Plan for AOCs 55A and 55B of 6/13/03	8/1/03	MADEP	U.S. Department of the Navy	A.R. File	55A, 55B
4.9			L	Responses to MADEP Comments on the Draft Proposed Plan for AOCs 55A and 55B	8/15/03	U.S. Department of the Navy	MADEP	A.R. File	55A, 55B
4.9			L	Responses to EPA Comments on the Draft Proposed Plan for AOCs 55A and 55B	8/15/03	U.S. Department of the Navy	EPA	A.R. File	55A, 55B
4.9			L	EPA Comments on the Draft Final Proposed Plan for AOCs 55A and 55B of 6/13/03 and Navy Responses to EPA's 7/16/03 Comments on the Draft Proposed Plan	8/21/03	EPA	U.S. Department of the Navy	A.R. File	55A, 55B

File No.	Vol.	Document No.	Document Type[(a)]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
5.0 RECORD OF DECISION									
5.3 Responsiveness Summaries									
5.3			L	Copy of Public Comments Received on the Proposed Plan for AOCs 55A and 55B (included as Appendix E2 of the Record of Decision)	8/29/03 - 9/29/03	Public	U.S. Department of the Navy	A.R. File	55A, 55B
5.3			R	Transcript of the Public Hearing on the Proposed Plan for AOC 55A and AOC 55B (included as Appendix E.2 of the Record of Decision)	9/10/03	Public	U.S. Department of the Navy	A.R. File	55A, 55B
5.3			R	Responsiveness Summary (included as Part 3, the Responsiveness Summary, of the Record of Decision for AOC 55A and AOC 55B)	10/03	U.S. Department of the Navy	Public	A.R. File	55A, 55B
5.4 Record of Decision									
5.4			L	Comments on Draft ROD - AOCs 55A and 55B	9/17/03	David Chaffin, MADEP	Mark Leipert, U.S. Department of the Navy	A.R. File	55A, 55B
5.4			L	[Comments on the] Draft Record of Decision for Area of Concern 55A (North of Trotter Road - Antennae Field) and Area of Concern 55B (North of Trotter Road - Debris Field),	9/17/03	Patty Marajh-Whittemore, EPA	Mark Leipert, U.S. Department of the Navy	A.R. File	55A, 55B
5.4			R	Final Record of Decision for AOC 55A and AOC 55B, Naval Air Station South Weymouth, Massachusetts	10/03	U.S. Department of the Navy and EPA	Public	A.R. File	55A, 55B
5.9 Correspondence									
5.9			L	EPA Comments on the Draft ROD for AOC 55A and AOC 55B	9/17/03	EPA	U.S. Department of the Navy	A.R. File	55A, 55B
5.9			L	MADEP Comments on the Draft ROD for AOC 55A and AOC 55B	9/17/03	MADEP	U.S. Department of the Navy	A.R. File	55A, 55B

File No.	Vol.	Document No.	Document Type[(a)]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
6.0 REMOVAL ACTIONS									
6.0			R	Draft Removal Action Report for Various Solid Waste Removals	99	Foster Wheeler	U.S. Department of the Navy	A.R. File	Basewide
			R	Final Closeout Report Action Memorandum for AOC 55A: Antenna Towers	4/11/03	Foster Wheeler	U.S. Department of the Navy	A.R. File	55A
6.8 Work Plans									
6.8			R	Work Plan for Review Item Area 55A, Removal and Soil Remediation of Seven Transmitter Antenna Towers	8/02	Foster Wheeler	U.S. Department of the Navy	A.R. File	55A
6.9 Correspondence									
6.9			L	EPA concurrence on the Final Closeout Report Action Memorandum for Area of Concern 55A: Antenna Towers	6/3/03	EPA	U.S. Department of the Navy	A.R. File	55A
10.0 ENFORCEMENT/NEGOTIATION									
10.16 Federal Facility Agreements									
10.16		10.16-1	L	Federal Facility Agreement for South Weymouth Naval Air Station National Priorities List Site	4/00	EPA	U.S. Department of the Navy	A.R. File	Basewide
13.0 COMMUNITY RELATIONS									
13.2 Community Relations Plan									
13.2		13.2-1	R	Community Relations Plan Naval Air Station South Weymouth, Massachusetts	7/98	U.S. Department of the Navy	Public	A.R. File	Basewide
13.4 Public Meetings/Hearings									
13.4		13.4-1	R	Restoration Advisory Board Workshop Guidebook	7/94	EPA	Public	A.R. File	Basewide
13.4		13.4-6	L	Public Notice: Notification of Restoration Advisory Board Meetings (Monthly)	1995-2003	EA Engineering, Science, and Technology	Public	A.R. File	Basewide
13.4		13.4-7	M	Restoration Advisory Board Meeting Minutes (Monthly)	1995-2003	U.S. Department of the Navy	Public	A.R. File	Basewide
13.5 Fact Sheets/Information Updates									
13.5			L	Public Notice: Public Information and Public Hearing for the AOC 55A and 55B Proposed Plan	8/03	EA	Public	A.R. File	55A, 55B
13.5			L	Legal Notice, Record of Decision Available For AOCs 55A and 55B, Naval Air Station South Weymouth, Weymouth, Massachusetts	10/03	EA	Public	A.R. File	55A, 55B

File No.	Vol.	Document No.	Document Type[(a)]	Document Title	Document Date	Document Author	Document Recipient	Document Location	Area of Concern
13.6 Mailing List									
13.6		13.6-1	N/A	Community Relations Mailing List: State, Federal and Local Agencies (including Media and Public Libraries)	N/A	U.S. Department of the Navy	N/A	A.R. File	Basewide
13.6		13.6-2	N/A	Community Relations Mailing List: Other Parties (e.g., general public) – CONFIDENTIAL (due to potential Privacy Act violations)	N/A	U.S. Department of the Navy	N/A	EFANE	Basewide

(a) R = Report; L = Letter; M = Meeting Minutes.

AOC = Area of Concern.
A.R. File = Administrative Record File.
EBS = Environmental Baseline Survey.
EFANE = (Navy) Engineering Field Activity Northeast.
EPA = (U.S.) Environmental Protection Agency (Region 1).
MADEP = Massachusetts Department of Environmental Protection.
N/A = Not Applicable.
NAS = Naval Air Station.
RIA = Review Item Area.

APPENDIX E.1: PUBLIC COMMENTS ON THE PROPOSED PLAN FOR AOC 55A – ANTENNAE FIELD AND AOC 55B – DEBRIS AREA

Refer to attached copies of the comments received during the public comment period.

COMMENT SHEET – Proposed Plan for Area of Concern 55A and Area of Concern 55B

Use this space to write your comments or to be added to the mailing list.

The Navy encourages your written comments on Areas of Concern 55A (North of Trotter Road – Antennae Field) and 55B (North of Trotter Road – Debris Area), Naval Air Station South Weymouth, Massachusetts. You can use the form below to send written comments. If you have questions about how to comment, please call Mark Leipert at (610) 595-0567, Ext. 146. This form is provided for your convenience. Please mail this form or additional sheets of written comments, postmarked no later than September 29, 2003, to the address shown below:

Mr. Mark Leipert
Remedial Project Manager
Naval Facilities Engineering Command
Engineering Field Activity Northeast
10 Industrial Highway, Mail Stop No. 82
Lester, PA 19113-2090

9-10-03

Hi Mark, (AOC 55B)

while CERCLA does not impact on solid waste cleanup directly, the NAVY's input to the State / Citizens on what needs to be done, may help define a future plan.
Your input is requested.

Bill Cotter
Weymouth

Please include my address for future mailings

Comment Submitted by: Bill Cotter

Address: 39 Wingate Rd
Weymouth, MA 02189

APPENDIX E.2: TRANSCRIPT OF PUBLIC HEARING ON THE PROPOSED PLAN FOR AOC 55A – ANTENNAE FIELD AND AOC 55B – DEBRIS AREA

Refer to attached copy.

PUBLIC INFORMATION SESSION
AND PUBLIC HEARING

Fire Fighting Training Area
Area of Concern 55A
Area of Concern 55B

September 10, 2003

8:30 p.m.

Naval Air Station

South Weymouth, MA

(Meeting opened at 8:35 p.m. Mark Krivansky, Chairman.)

MR. KRIVANSKY: Good evening to everybody. It is now approximately 8:35. We are going to get started with the public hearing portion of this evening's activities. Again, there was actually three sites that we are discussing: 55A and 55B and also the Fire Fighting Training Area.

What I'm going to ask everybody to do is please step up to the mike. The mike is only recording. It doesn't amplify but it gives everyone a point to stand and be able to communicate to the Navy their concerns or comments on the proposed plans for any of the three sites that we've discussed this evening.

What I would ask you to do is a couple of things. When you first come up, please state your name, and if you can, please spell your name for the stenographer so that we make sure we've got everybody, and we can get these comments back to them at a later date when they're responded to in the Responsiveness Summary for the respective record

of decision.

Also, since there are three sites we're discussing, I would ask that you let us know what site you're making your comment on. If it's Fire Fighting Training Area comments, please state that, and 55A and/or B, please state that also.

We'll stay here this evening until everybody has had the opportunity to comment. Again, as part of the public hearing this is to go on the formal record, the Responsiveness Summary is where the Navy will respond to your formal comments. You also have the opportunity to send in comments either through the mail or electronically by e-mail, and I encourage everybody to do any way that they find agreeable. Also you can just drop off written comments in the back as another option.

And we'll stay and listen to everybody's comments, and then I'd like to thank everybody, and we'll close the evening. And there is a RAB tomorrow night, just to remind anybody who is interested.

We're not going to talk about any particular site. I'll let you come up and tell me

what site your comment is. I welcome the first person to please step up. Mary.

MS. PARSONS: My name is Mary Parsons, P A R S O N S, and I'm from the Town of Rockland. I am sorry, I just got here. I didn't have the benefit of your earlier informational meeting. I came from one hearing which I was involved in to this hearing.

But I had a question on the EPA's minimum requirements on the Fire Fighter Training Area. What made this a Superfund site? Because of the fuel involved in it? Anyone?

MR. KRIVANSKY: Just as part of the public hearing, the Navy although is going to respond, this is where you state a comment.

MS. PARSONS: This is just going to be on the record.

MR. KRIVANSKY: We take it down and then we'll respond.

MS. PARSONS: And you'll respond in writing?

MR. KRIVANSKY: Right.

MS. PARSONS: My other question, does

this now become an MPC site under the Department of Environmental Protection of Massachusetts? And did anyone look into polychlorinated hydrocarbons in the fractured bedrock because it states here you only went down so far in the surface and there is many layers of pavement. So I would like those answered.

And concerning areas of concern, 55B, there is a statement, "The average concentration of chromium in surface soil also exceeded the terrestrial invertebrate benchmark values." I didn't see where you stated what type of chromium. And I would like to know an answer to that.

And it also says, "However, because of the uncertainties associated with the soil benchmark values, further action at this AOC was not recommended based on these exceedances." I don't quite understand how you, when you say no further action when it exceeds benchmark. So I would like that clarified.

And then on another subject that is more related to this, goes back to like 1999 and into the meeting minutes of the South Shore Tri-Town Development Corporation and the Navy real estate

person, it was in their meeting minutes, and I think the date is November 1999, and I will clarify it in written comments, that Mr. David Drozd is suggesting to the SSTTDC to meet certain requirements without necessarily cleaning up. And I would like to have that statement addressed if that's the Navy's intent. Because as I see it, I'm seeing more no further action involved here than basically removing these Superfund sites. So I really would like a statement from the Navy in writing concerning that because it kind of gives the perception that you're trying to get out of here without really cleaning up. And your idea of clean-up may be different than the residents' idea of clean-up. Thank you.

MR. KRIVANSKY: Thank you, Mary. We welcome anyone else that may have a comment. Please step forward.

MS. WHITTEMORE: Patty Whittemore, EPA, Fire Fighting Training Area. EPA will just submit a written statement for the record.

(Ms. Whittemore then distributed copies of an EPA comment letter.)

MR. KRIVANSKY: I encourage whoever

would like to step forward. I am going to wait a few minutes. I don't know if there are any late arrivals, to make sure we don't miss anybody that wants to take advantage of this evening, if you feel you have an opportunity to please step forward. Otherwise you are welcome to exit at your convenience.

MR. CHAFFIN: Dave Chaffin, DEP, just a brief statement. DEP cannot endorse the proposed plan as written because it doesn't indicate that the Navy intends to clean up the weathered petroleum product that we observed at the site. And because it includes several statements that misrepresents site conditions. We'll submit written comments before the close of the public comment period.

MR. KRIVANSKY: Thank you. Is anybody going to make a comment? We're more than happy to -- I was sure someone's cell phone would go off.

I would like to thank everybody for coming this evening, if it was for the poster session, the informational session, or for the hearing. If there are no further comments, we'll close the public hearing for 55A, B, and Fire

Fighter Training. Thank you and good evening.

(Whereupon the hearing concluded at 8:50 p.m.)

C E R T I F I C A T E

State of Massachusetts)
) ss.
County of Norfolk)

I, *Carol DiFazio*, a Notary Public in and for the County of Norfolk, State of MASSACHUSETTS, do hereby certify:

That the said proceeding was taken before me as a Notary Public at the said time and place and was taken down in machine shorthand writing by me;

That I am a Registered Professional Reporter of the State of Massachusetts, that the said proceeding was thereafter under my direction transcribed into computer-assisted transcription, and that the foregoing transcript constitutes a full, true, and correct record of the proceedings which then and there took place;

IN WITNESS WHEREOF, I have hereunto subscribed my hand and affixed my official seal this 15th day of September, 2003.

CAROL DiFAZIO, Notary Public
Registered Professional Reporter

My Commission expires December 20, 2007
CSR#: 108293

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